Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

October 9, 1961

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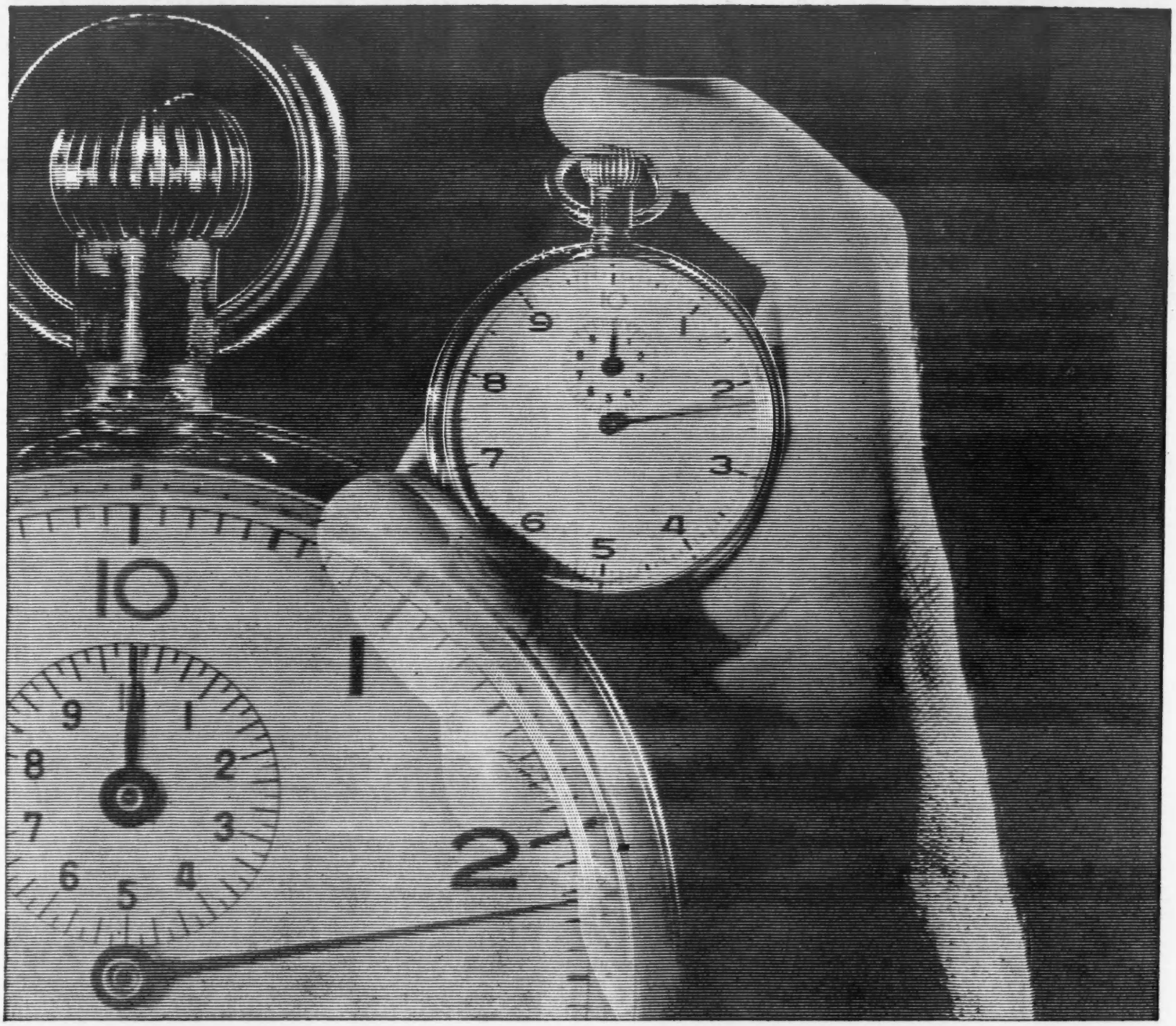

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Oil, Paint and Drug Reporter

Vol. 180 No. 15 30 Church St., New York 7, N.Y. October 9, 1961

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MOVES UP: Joseph R. Dill, named vice-president for administration by Borden Chemical Company, New York. He remains as the firm's controller.

Petro Naphthalene: Commonwealth Debuts

Petroleum naphthalene's jangling register quivered again last week as Commonwealth Oil Refining Company punched in for 50 million pounds at Ponce, Puerto Rico.

This, Commonwealth's first petrochemical venture, calls for a $6.5 million facility adjacent to the Ponce refinery. Production will include aromatics as well as naphthalene. On stream target: January of 1963.

By that time, if all chickens come home on schedule, US petroleum naphthalene capacity, which was zero just yesterday, will stand at an estimated 625 million pounds.

Before Commonwealth, the latest entry was Cities Service Company, which in early September announced a 50-million-pound unit for its East Chicago, Ind., refinery. The concern is pressing for a mid-1962 start-up (OPD, 9/11/61).

And a whisker earlier, Texaco, Inc., stepped in boldly with plans for 100 million pounds of capacity at its Port Arthur, Tex., facility (OPD, 8/28/61).

Already on stream is Ashland Oil & Refining Company's 75-million-pound-plant at Catlettsburg, Ky. Nosing toward the wire are Sun Oil Company's 100-million-pound plant at Toledo,Ohio; and, at Delaware City, Md., the first of two 100-million-pound units under way for Collier-Tidewater Company. The other unit is rising at Los Angeles.

At Chocolate Bayou, La., Monsanto Chemical Company, the only chemical-based firm on the roster, will have a

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Soybean Crushing Plants Sent on the Sales Route

Spencer Kellogg Division of Textron, Inc., has agreed to sell its soybean crushing plant at Decatur, Ill., to Interoceanic Industries, Inc., of Minneapolis, Minn., for cash.

The plant, which extracts oil from soybeans by a chemical solvent process, has a daily capacity of 34,000 bushels of soybeans. It will be closed by Textron on October 27, and taken over by Interoceanic October 30, with production resuming "as soon as practicable."

Textron has been planning to dispose of Spencer Kellogg's three soybean crushing plants since taking over the firm in July. The other two plants for sale are at Bellevue, Ohio, and Des Moines, Iowa.

American Maize-Products Sets Corn Starch Facility

American Maize-Products Company, corn refining and chemical processing organization, will begin installation of special starch facilities at its Hammond, Ind., plant to provide larger quantities of specially treated corn starch products.

The project, costing about $500,000, is scheduled for completion in mid-1962.

The special starch unit will bring to $6 million current plant, warehouse and other capital improvement projects at the Hammond facility. Now under construction and scheduled for completion next spring is a $1.5 million warehouse and mechanized packing and shipping unit.

Kefauver's Industry Crusade Sends Sen. Hruska Hurrying To Hoist the Storm Signals

Sen. Estes Kefauver of Tennessee wants to have corporation executives held responsible for the antitrust activities of their subordinates. He also wants heavier fines and mandatory jail sentences imposed on violators of the antitrust laws, but he appears to be headed into stormy weather with the senate judiciary committee before either of these two aims is accomplished. This became apparent last week at a one-day post-session hearing by the senate monopoly committee on a package of five bills sponsored by Sen. Kefauver and Sen. William Proxmire of Wisconsin.

Government spokesmen for the Federal Trade Commission and the Department of Justice are in accord with the senator's objectives, but at least one of his Republican colleagues is balking.

Kefauver Going Too Far?

Sen. Roman Hruska of Nebraska has raised the danger flag to indicate that Mr. Kefauver may be going much too far in his zeal to give the antitrust laws new teeth.

In effect, he claims, Sen. Kefauver may be overturning the established system of justice that says criminal prosecutions must be based upon more than just circumstancial evidence.

The senator has reference to S 2254 in particular which amends section 14 of the Clayton act.

This bill provides that whenever a corporation violates any of the penal provisions of the antitrust laws, such violations shall be deemed to be also that of the individual directors, officers, or agents who authorized, ordered, did, or ratified the acts constituting in whole or in part such violation.

Such persons could be fined up to $100,000 or imprisoned for one year.

The backdrop for this and the other bills before the committee was the recent elec-

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IN HIGHER POST: Dr. Nolan B. Sommer, named general manager of American Cyanamid Company's central research division. He had been assistant general manager of the commercial development division.

Lead, Zinc Subsidy Bill Signed by the President

Domestic producers of lead and zinc who have not turned out more than 3,000 tons of the two metals combined in any one year since January 1, 1956, will be eligible for subsidies from the federal government when congress appropriates the money.

President Kennedy made this possible by signing the lead-zinc subsidy bill (HR 84) into law last week, but since the bill only "authorizes" the payment of subsidies and does not actually provide the funds, miners will have to wait until congress does so next year.

It is estimated that the program, which is limited to four years of operation, will

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Carbide Plays It Safe On Urethanes Patent

Union Carbide Corporation has moved to protect its polyether customers in the urethane foam industry by purchasing rights under the Price patent (US patent No. 286674) regarding urethane products made from polyether. Purchase has been made from General Tire & Rubber Company.

General Tire, which obtained exclusive rights to the patent from the University of Notre Dame in 1958, is currently involved with Mobay Chemical Company in interference proceedings. Should General wins its case, the urethane foam industry might have to pay royalties.

There has been considerable uncertainty in the urethane foam industry about the ultimate outcome of these proceedings, and concern among producers about possible royalty liabilities.

Should Mobay win, of course, there would be no need for royalty payments. Carbide's purchase of right from General

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Chemical Marketing Cues . . .

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44 VINYL CHLORIDE MONOMER: Will the Nov. 1 price hike stand?

Report From Europe

UK Drug Trade Is Up in Arms At Gov't Deals

Britain's pharmaceutical makers are up in arms as their own country's Ministry of Health continues to place drug orders with UK firms that import from unlicensed producers in Italy and Denmark.

The ministry is disclosing neither the quantity nor the contract amount, but drug industry sources believe the total order is worth about $4.2 million and that the importers were nearly $1 million under the closest UK bids.

In May, the Minister of Health, Enoch Powell, announced his decision to cut hospital drug costs by buying drugs through importers from unlicensed producers outside the UK, with the government then to negotiate royalties with the British patent holders (OPD, 5/22/61).

The First Drugs Chosen

The first drugs chosen for the experiment are tetracycline, chlortetracycline, oxytetracycline, chloramphenicol and chlorothiazide.

All the successful bidders were British importers, the ministry reports, but "none is a patentee or licensee." It identifies the producing companies as being Danish and Italian, but will not disclose their actual names.

The drugs will be of "high quality, conforming in all respects to British standards," the ministry adds.

The importing firms are understood to be Strang Chemical, Biorex Laboratories, Fraser Chemicals and Halewood Chemicals. These firms are keeping mum when questioned about the contract.

Biorex says it is a manufacturer of drugs and, from time to time, imports raw materials. Strang Chemical is thought to have a relation with Marsing of Copenhagen, and this firm is assumed to be one of the actual producers.

Association of British Pharmaceutical Industry is "dismayed that the Health Minister should thus seek to encourage foreign companies to manufacture abroad, for use in British hospitals, important drugs protected by British patents."

The Health Ministry insists that it is merely coincidental that the leading UK manufacturers of the drugs chosen for the first bids are all wholly-owned subsidiaries of major American drug companies.

But Pfizer, Ltd. (subsidiary of Chas. Pfizer & Co.) and Cyanamid of Great Britain (subsidiary of American Cyanamid

—Continued on page 41

Trimethyl Phosphate Push Is Being Launched by Ethyl

Ethyl Corporation, now producing trimethyl phosphate on a large scale as an ignition-control additive for gasoline, is making it available for other industrial chemical applications as well.

The product, made in the New York-based firm's Baton Rouge, La., plant, is recommended for use as a methylating agent, insecticide chemical intermediate, flame-retardant solvent and catalyst.

Right now, TMP is being marketed as a gasoline additive by Ethyl for use in controlling spark plug fouling, surface ignition and rumbles. Ethyl says its customers number forty refineries.

As a methylating agent, TMP converts acrylic compounds into methyl ethers, converts aniline and methylamines into their dimethyl derivatives, acts as a solvent and synergist in some insecticides, and catalyzes the "set" of urea-formaldehyde resins.

MIBK Facility Due Soon At Humble's Bayway Plant

Enjay Chemical Company, a division of Humble Oil & Refining Company, expects to start marketing methyl isobutyl ketone in mid-1962. By that time, Humble is slated to complete facilities for MIBK manufacture at its Bayway, N.J., refinery.

Humble's new plant will produce MIBK as its principal product. Last autumn the company put the finishing touches on a 100-million-pound a year acetone plant at Bayway (OPD, 9/19/60). Acetone is the raw material for MIBK.

Doctor's Dilemma Answered: Study the Literature on Drugs

The pharmaceutical industry has a simple reply to congressional demands that drug manufacturers tell the whole story—the good and the bad—in their advertisements of prescription drugs: Urge physicians, before prescribing, to consult the manufacturer's literature for information about possible side effects. This was suggested last week to the house commerce committee by Dr. Theodore G. Klumpp, president of Winthrop Laboratories, Inc., on behalf of the Pharmaceutical Manufacturers Association, during testimony on the Dingell bill, HR 6471.

Dr. Klumpp said that the purpose of the Dingell bill is to promote disclosure—a purpose entirely consistent with the established policy of the PMA—but the bill in its present form is "extreme and would be unworkable."

Present Requirements Under Law

Section 15 of the Federal Trade Commission act now provides that if an advertisement of a drug to the medical profession sets forth the formula of the drug quantitatively, it shall not violate the law unless the advertisement contains a false representation of a material fact.

The Dingell bill would delete this provision of the law and require all advertisements of prescription drugs to be considered misleading in a material respect if they do not list the side effects and contra-indications of the drug.

Dr. Klumpp pointed out that medical journal advertising is only one of the physician's many sources of information about drugs. Entirely apart from what the physician reads in a medical journal advertisement, he has at his command from the manufacturer a vast quantity of detailed information about each drug whether it be a new drug or an old drug, he said.

In judging the accuracy and completeness of this information, he added, he may rely not only on the knowledge of the integrity of the particular manufacturer, but also on the close control exercised by Food & Drug Administration.

Dr. Klumpp urged that the Dingell bill be amended to require the inclusion of the following statement in all advertisements of prescription drugs: "Before prescribing be sure to consult the manufacturers' literature for information about

—Continued on page 63

'Spray Now, Pay Later' TVA's New Credit Plan

Tennessee Valley Authority, a trailblazer in the chemical fertilizer business, frankly admits that when it comes to credit and extended payment plans, it's private industry that sets the pace.

In line with the "spray-now-pay-later" trend, TVA says it will grant producers and distributors up to ninety days credit for fertilizer sales in its distributor-demonstration program.

Cost for extended payment beyond thirty days will be 1 percent of the total price.

Cities Service Buys Into Belgium's ASED

Cities Service Corporation, New York, has just picked up "a substantial interest" in Ammoniaque Synthetique et Derives (ASED), a producer-marketer of nitrogen fertilizers, coke and chemicals.

ASED is a subsidiary of Evence Coppee & Cie., the big Brussels, Belgium, industrial complex with interests in metals, electric power, coal, chemicals, foods, construction and other enterprises.

Under the new arrangement, Cities Service will be afforded an important position in the European Common Market, the company reports, with special emphasis on the chemical and other fields that mutually interest the partners.

The manufacturing facilities of ASED, now being greatly expanded, are located near Antwerp and within the corridor linking the North Sea with the foremost industrial area of Europe, extending from the Ruhr in Germany through Luxembourg, Belgium and Northern France.

Other cooperative enterprises between Cities Service and Evence Coppee are under consideration in the Common Market, it is reported.

Epoxy Resins Lure Antara

As a first entry into the epoxy resin area, Antara Chemicals Division of General Aniline & Film Corporation, New York, has a new epoxy diluent, "Agent AT-534." The material is available on a fully commercial scale, and is described as a low-cost (45 cents a pound), non-toxic epoxy reactive diluent.

Fertilizer Bids Wanted By Vietnam Government

Invitations have been extended to the fertilizer industry by the Vietnam government for bids on supplying 18,500 tons of fertilizers to be purchased under the Mutual Security Program. Bids are due by October 18 and should be sent to the Director General of Commerce, 49 Gai Long, Saigon.

Materials to be bought include 1,500 metric tons of ammonium phosphate; 2,000 tons of postassium sulfate; 2,000 tons of muriate of potash; and 13,000 tons of tricalcium phosphate. Additional details are contained in Small Business Circular No. 61-296 of the International Cooperation Administration.

The Week's Price Changes

Beeswax, Coconut Oil, Soybean Oil, Trichloroethylene Higher. Aluminum Pigments, Carnauba Wax, Linseed Meal Lower.

Prices Advanced

Beeswax, crude, 1c. per lb. (p. 56).
Coconut oil, ¼c. per lb. (p. 56).
Cocoa butter, 2c. per lb. (p. 56).
Corn oil, crude, ¼c. per lb. (p. 56).
Refd., ¼c. per lb. (p. 56).
Copra, $1 per ton (p. 56).
Cottonseed oil, crude, ⅛c. per lb.
Refd., ⅛c. per lb.
Lard, cash, 1/20c. per lb.
Soybean oil, crude, ⅜c. per lb. (p. 56).
Refd., ⅜c. per lb. (p. 56).
Trichloroethylene, ¾c. per lb. (p. 44).

Prices Reduced

Aluminum paste and powder, 1c. per lb. (p. 61).
Carnauba wax, No. 3 Ceara, 1c. per lb. (p. 56).
Chenopodium oil, 8c. per lb. (p. 59).
Grapefruit oil, 20c. per lb. (p. 59).
Linseed meal, old proc., $1 per lb. (p. 56).
Peanut oil, crude, ½c. per lb. (p. 56).
Refd., ½c. per lb. (p. 56).
Soybean meal, 50c. per ton (p. 56).
Tin metal, 1c. per lb.
Tin, salts, ½c. to ⅝c. per lb.

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

Oct. 6, 1961	Sept. 29, 1961	Oct. 7, 1960
113.71	113.71	109.65

Pest Control Board: It's Big

There's a new Federal Pest Control Review Board in Washington these days, and it has some heavy guns backing it up: the Departments of Agriculture, Defense, Interior and Health, Education & Welfare. The board has just been established and for one main purpose: to carry out the policies on natural resources announced by President Kennedy in his special message to congress.

The new organization will review pest control programs and advise the various departments and agencies of government concerning problems in the use of pesticides and other chemicals.

Especially will it be interested in cases involving interdepartmental matters and responsibilities.

The board's policy of review will make it possible for all departments concerned to appraise program objectives, and insure that the most effective, economical and safest pest-control procedures are followed.

In particular, the board will consider problems arising from pesticide uses that involve possible hazards to human health, to livestock and crops, and to fish and wildlife.

The Secretaries of Agriculture, Defense, Interior, and Health, Education & Welfare

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HEADS UP A UNIT: Dr. Alexander Zaffaroni, executive vice-president of Syntex Corporation, named president of the corporation's US pharmaceutical operation, Syntex Laboratories, Inc.

Cellulose Acetate Prices Are Going Up on Nov. 3

Celanese Polymer Company, New York, on November 3 will raise the price of certain grades of cellulose acetate molding compounds and flake. The company, a unit of Celanese Corporation of America, says the new prices reflect increased raw material costs and operating expenses.

The new cellulose acetate molding material prices will be 52 cents per pound for translucent colors and metallic pearls, an increase of 4 cents, and 46 cents per pound for opaque color grades, a rise of 6 cents.

Cellulose acetate flake prices will be increased 2 cents per pound on two grades, bringing the new prices to 41 and 46 cents. All prices are for carload quantities.

Prices for transparent colors and extrusion grades of cellulose acetate and for "Forticel" cellulose propionate will remain unchanged.

Sulfuric Acid Facility Being Built by Leonard

Leonard Construction Company, Chicago has started construction of a con-

The plant is a part of National Phosphate Corporation at Marseilles, Ill.

The plant is to be of Leonard-Monsanto design and will have a capacity to produce up to 750 tons of sulfuric acid per day.

The plant is a part of National Phosphate's plans for a multi-million dollar expansion for agricultural chemicals.

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Petrochems: Who Worries?

Will coal chemicals survive in the face of the current onrush of the petrochemicals industry?

That question is bothering would-be business forecasters, but it isn't worrying the coal chemical producers — least of all Fletcher L. Byrom, president of Koppers Company, Pittsburgh, Pa.

Speaking before the Southern Research Institute in Birmingham, Ala., last week, Mr. Byrom had this to say for the days to come: "We turn to a future in which the coal chemicals industry will still be important, both in peace and in times of military emergency."

Indicating he had no fear for the future, Mr. Byrom admitted that coal chemicals "will be an industry which is no longer our only source of aromatic chemicals, but it will be very important as a source of needed chemicals and one which should remain indispensable as a source of certain bulk materials, namely pitches, for a long time to come."

The petrochemicals industry, too, has its problems, Mr. Byrom observed.

"In fact," he pointed out, "because the competitive petroleum products themselves have definite basic values as fuel and have complicated and expensive processes by which they are made, we believe coal-derived chemicals will always be competitive."

Then he moved into an area that coaltar has all by itself: products provided by the industry which cannot be obtained from any other source.

First, he listed electrode pitch used as a binder for electrodes in the aluminum industry. He next spoke of the capabilities of water-

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HF Market Upheaval Looming As Kaiser Gets Into Fluorine, Soviets Develop New Process

Hydrofluoric acid output should hit 179,066 tons this year, up more than 16 percent over the 1960 level of 153,939 tons. On the face of it, progress of the industry is more than satisfactory. But looming are two major developments which promise both short- and long-term upheavals in the market. Boding immediate dislocation: Kaiser Aluminum & Chemical Corporation will jump into fluorine chemistry with a vengeance—right from HF to fluorocarbons—removing itself as one of the industry's biggest single customers.

Added to this, recent developments in the Soviet Union put the spotlight on a possible revolution in the raw materials base for HF over the long haul.

It's not hard to see why Kaiser's announced entry into HF is causing concern among producers already in the market.

HF Production*

	BDSA	Census
1961	179,066	125,000
1960	153,939	113,783
1959	149,101	103,174
1958	111,567	84,377

* In tons. Business & Defense Services Administration reports output by both aluminum producers and chemical makers, while Bureau of Census tallies production of the latter only. Figures for 1960 and 1961 are estimates.

For one thing, present suppliers to Kaiser will lose business. For another, Kaiser says it will sell both hydrogen fluoride and fluorocarbon products.

This latter announcement comes in the face of rising over-capacity for HF brought about by recent doubling of capacity of General Chemical Division's plant at North Claymont, Del., and announcement of construction of a 10,000-ton-a-year plant by Dixon Chemical & Research, Inc., at Paulsboro, N.J.

Further, it's suggested that the merchant market for HF, already a minor part of the whole, will be even more cramped by entry of a new seller.

The over-capacity of HF is borne out by a report just issued by Business & Defense Services Administration. BDSA says that total capacity on a 100 percent basis as of January 1, 1961, reached 214,516 short tons. Projected new facilities will bring capacity to 240,316 tons a year by the end of 1962, presumably including Kaiser's plant.

This means that if output reaches the projected 179,000 tons this year, an operating level of 83 percent of capacity will be reached. Stacking 1960 output against year-end capacity, an operating level of something over 71 percent of capacity was attained.

Allowing for Kaiser's additional facility, providing output increases another 16 percent for 1962, total US capacity would be about 86 percent utilized. (Trade

—*Continued on page 60*

R&D CHIEF: S. A. Ballard, chosen research and development manager for the industrial chemicals division of Shell Chemical Company, New York.

DuPont Can Devise Disposal Plan If We Get Final Say: Justice Dep't

The government is willing to let E. I. duPont de Nemours & Co. devise its own plan for disposing of its court-held illegal holdings of General Motors Corporation stock—up to a point. If the plan doesn't accord with the government's views on how the stock should be distributed, then it cannot become effective until approved by the court. Furthermore, Christiana Securities Corporation, stockholding company of the duPont family, must also be required to dispose of its GM holdings, now owned or acquired, through any disposal plan put forth by duPont.

These conditions were included in a proposed final judgment submitted by the Department of Justice last week to the Federal District Court at Chicago to end the antitrust case brought against duPont because it owns 63 million shares of GM voting stock—about 23 percent of the number outstanding.

The government's proposal was offered in lieu of the final judgment proposed on September 1 by duPont. After Judge Walter LaBuy rules on which of the two proposals to approve—or draw up his own judgment—duPont will have ninety days in which to start disposing of the stock and must complete the task in ten years.

Inclusion of Christiana within the scope of the divestiture plan was an unexpected development in the government's judg-

—*Continued on page 60*

IN RESEARCH POST: Cyril H. Nield, named by Chemetron Corporation to head organic research in the research and development department of the chemical products division.

Monosodium Glutamate Is Rather Tasty to CSC

Commercial Solvents Corporation foresees a tasty bit of business in the monosodium glutamate market and is out to get it with a patented new microbiological process which should make the company one of the major US producers by June of next year.

Two big units of the company's biological production facilities at Terre Haute, Ind., are being converted and expanded for commercial production of the material, which is a well-known flavor booster for food.

The New York-based company is presently producing the material in semi-commercial volume.

CSC will not market the product under a brand name for retail sale. It will, in-

—*Continued on page 45*

Chemco Is Now Producing Polyamide, Amino Resins

Cemco, Inc., New York, is now in commercial production at its New Jersey facilities on a new line of polyamide and amino resins. According to Howard T. Von Oehsen, Cemco president, the products include:

- Thermoplastic polyamide resins for flexographic and gravure inks, protective coatings and adhesives.
- Thermosetting polyamide resins, recommended as non-toxic epoxy resin curing agents in adhesives, tool and die, industrial coatings and concrete patching compounds. Besides a line of competitive products, new polymers are also offered.
- The "Cem-cure" series of amino resinous products, which are reported to be effective, low-cost epoxy curing agents.

The "Cem-cure" resins range from semi-solids to low viscosities and are expected to find new applications in the coatings and construction industries.

Polyester Resin Agreement Is Inked by Goodyear, Toyo

Goodyear Tire & Rubber Company will provide Toyo Spinning Company, Ltd., Osaka, Japan, with technical assistance for manufacture of a polyester resin for synthetic textile fibers.

Under an agreement between the companies, subject to approval by the Japanese government, Goodyear will furnish technical knowledge for design, construction and start-up of a 10 million-pound-a-year plant.

The unit will be located at Iwakuni, and will produce "Vitel" polyester resins. This is the first foreign agreement signed by Goodyear on "Vitel."

Kefauver Is Seen Aiming At a Target of Aluminum

Producers and fabricators of alumnum and aluminum products are keeping a weather eye on Washington these days, for they may be the next target of the Kefauver monopoly investigating committee.

In their search for questionable pricing practices in the industrial economy, committee probers let it be known last week that they have issued subpoenas to about twenty companies in the aluminum industry for records on their selling activities.

Investigators described the subpoenas as preliminary to a determination of whether a full-scale investigation of the industry is to be made. Indications are that the committee is interested in the fabrication of products more than in

—*Continued on page 41*

Synthetic Glycerine: Olin Has a New Way

Olin Mathieson Chemical Corporation has developed a "new and economical" method for making synthetic glycerine, and is backing up its achievement with a multi-million-dollar manufacturing plant which is now under construction at the organics division's Doe Run complex in Brandenburg, Ky.

With a capacity of more than 40 million pounds a year, the plant is expected to be completed and operating by April.

The new method was developed in the Olin research center at New Haven, Conn.

—*Continued on page 47*

McKesson's Move Into Drug Output: Here's the Story

The bold move of McKesson & Robbins, Inc., into pharmaceuticals production is a result of growing "price consciousness" of the general public and other factors favoring generic-named drugs.

This is revealed by McKesson president Herman C. Nolen, who, though he heartily rejects charges brought against the drug industry in the Kefauver committee hearings, still feels that such charges have "found a fertile field to grow and multiply."

"Many people," Dr. Nolen said last week, "are convinced that drug prices are too high and we who are in the business of making and selling drugs must do something about it."

Addressing the New York Society of Security Anaylsts, Dr. Nolen disclosed that McKesson is already producing ninety-one generic-named pharmaceuticals on a national basis. Prices, he said, average one-half those of the comparable trade-named drugs.

In addition, the company, as distributor, has been moving to "automate" the marketing process from order-taking to delivery.

These are the factors, he reports, favoring generic-named drugs:

- Growing price-consciousness in all drug purchases.
- Growing popularity of health insurance.
- A larger, longer-living elderly population requiring more maintenance prescriptions.
- An expanding role of government in health and welfare of citizens.

But McKesson's chief holds no brief for the Kefauver committee charges. Alluding to the "fall-out" now settling from those hearings, he estimates that new product development in the drug field is off 40

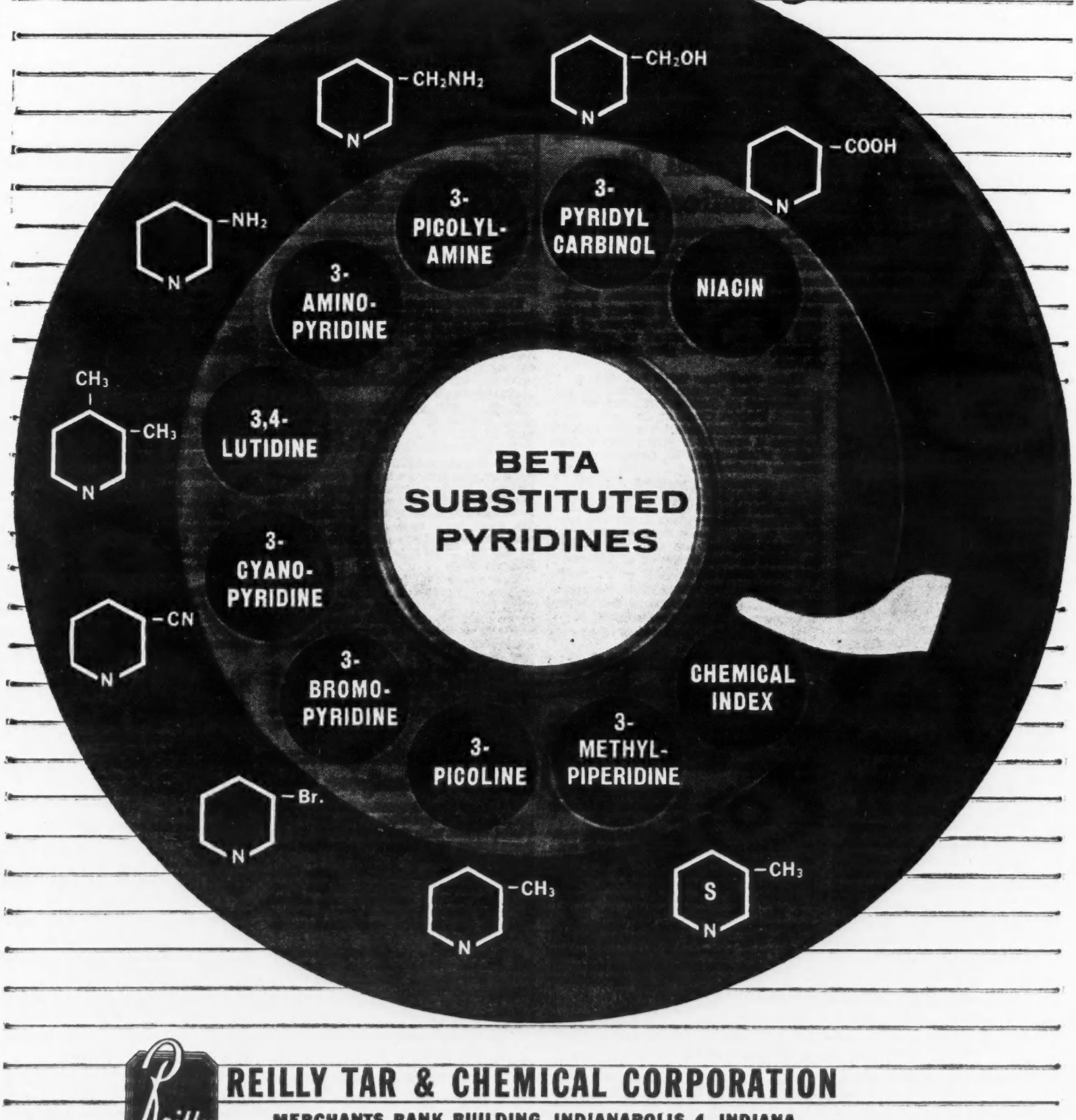
—*Continued on page 60*

Pitts. Plate Glass Off On Sardinian Venture

Rumianca, SpA, a chemical manufacturer of Turin, Italy, and Pittsburgh Glass International SA, have formed Chimica Sarda SpA, as a jointly-owned company.

The new concern, to be located in Sardinia (Italy), will manufacture glycerine, trichloroethylene, perchloroethylene and ethylene dichloride by processes developed by the chemical division of Pittsburgh Plate Glass Company in the United States.

call Reilly



Reilly CHEMICALS

REILLY TAR & CHEMICAL CORPORATION

MERCHANTS BANK BUILDING, INDIANAPOLIS 4, INDIANA

SALES OFFICES IN PRINCIPAL CITIES

IN BUYING POST: Carl W. Eklund, named assistant director of purchases for Lubrizol Corporation.

Ribicoff, Loevinger Won't See Estes Soon

Hearings that were scheduled for later this month by the Kefauver committee, in order to question Secretary of Health, Education & Welfare Abraham Ribicoff and assistant Attorney General Lee Loevinger on the drug industry antitrust bill (S 1552) have become a casualty of the congressional adjournment.

The two government spokesmen who appeared briefly last month to give their views on the legislation—largely favorable in the case of Mr. Ribicoff, but mostly critical in the case of Mr. Loevinger (OPD, 9/18/61)—were scheduled to return October 24.

It was stated last week, however, that this date was proved inconvenient and the hearings have been called off. No new date has been fixed.

Also, it is learned, Manufacturing Chemists' Association has accepted an invitation of the committee to file a statement on the bill, which it plans to do by October 27.

The association is concerned with the precedent that would be established in the patent law field by provisions of the bill that would limit the exclusive rights of drug patents to three years and compel the licensing of others to produce the drug during the remaining life of the patent.

Hearings previously planned for next week on the bill, meanwhile, will go forward as scheduled. Three days have been set for taking of testimony on the patent phases of the legislation, then the committee will recess until October 31 and November 1 for two more days of hearings.

The witnesses scheduled for next week are:

October 16—David L. Ladd, Commissioner of Patents, and Johan Bjorksen,

—*Continued on page 52*

Sherwin-Williams Opens Chicago Research Center

Sherwin-Williams Company, Cleveland, Ohio, has just opened a research center in Chicago, and already is planning to spend more than $1 million there during the coming year.

The facility is located only a few blocks from SW's large Kensington plant. During the coming year, the new center's efforts will go into analytical, paint, resin and mineral products research, as well as development and technical services.

Chemical 'Missionary Work' At French International Parley Places the US in Perspective

The European chemical industry should be looking at its American counterpart with a much clearer perspective these days, following some "missionary work" done in Bordeaux, France, during the past week by a number of the top chemical executives of the United States. Springboard was the big International Congress of Industrial Chemistry, which brought together both American and European leaders for a face-to-face exchange of views on their industry.

In an attempt to present a fuller picture of chemical doings, the American leaders touched on such problems as individual company matters, nation-wide concerns, industry developments and the future relationships between Europe and the United States.

Another report on last week's International Congress on Industrial Chemistry in Bordeaux, France, appears at the right.

One of the leaders in the discussion, George L. Parkhurst, a director and vice-president of Standard Oil Company of California, told the meeting that the future of petrochemicals looks better in Europe than it does in the United States, largely because of the heavier population abroad.

European Petrochemical Expansion Rapid

"Rapid European expansion is taking place in petrochemical areas of large per capita consumption potential, including synthetic rubber, carbon black, polyethylene, polypropylene and synthetic fibers.

"Further potential exists in replacing coal as the raw material for benzene and toluene, which has largely been achieved in the United States," Mr. Parkhurst went on.

Then, looking to the future, he said:

"I am impressed more by the points of similarity between the European and the American industries than I am by their differences. The major point of difference appears to be that of timing.

"A large gap appears in the physical size of the petrochemical industry in the two areas. However, the European petrochemical industry is continuing to expand at a much higher percentage rate than that in the United States, and there is no basic reason why it should not some day exceed in size that of the United States."

Paul B. Slawter, jr., vice-president of G. M. Basford Company, a New York advertising agency that handles many chemical accounts, spoke on the development of corporate images.

Mr. Slawter noted that "an advertising program which contains the vital central

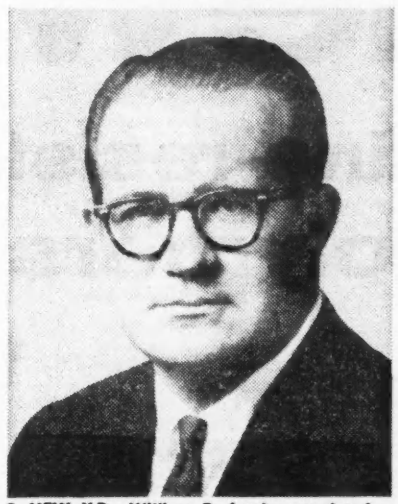
—*Continued on page 34*

Tungsten Disulfide Ready In Commercial Quantities

Tungsten disulfide, a chemical useful as a high-temperature lubricant and catalyst, is now available in commercial quantities from the chemical and metallurgical division of Sylvania Electric Products Inc., New York. Sylvania is a subsidiary of General Telephone & Electronics Corporation.

Previously, tungsten disulfide has been available in laboratory quantities only. The product, a synthetically-produced, soft, grayish-black powder, has high oxidation resistance and excellent lubricating properties. It can be used in solid-film form or as an additive to suitable carriers, as an effective lubricant in wire drawing, metal forming, cutting and working, and in valves, gears and bearings.

In addition, because of its high purity, tungsten disulfide is potentially useful to the petroleum and petrochemical industries for a variety of catalytic reactions.



A NEW V.P.: William R. Lewis, appointed a vice-president of Union Carbide Ore Company, a division of Union Carbide Corporation, New York.

Cyclics Pace Organics In 1960 Upward Surge

Paced by cyclic intermediates, with a 13.5 percent gain, production of all synthetic organic chemicals rose 7.6 percent to a total of 96,729 million pounds in 1960, the Tariff Commission reports.

Final data from the commission show sales in 1960 at 55,538 million pounds, with a composite price tag of $7,507 million, up from 52,973 million pounds valued at $7,267 million in 1959.

Total production of coaltar, water-gas tar and oil-gas tar in 1960 was 709 million gallons, up 6 percent from 669 million gallons the year before.

Production of all tar crudes, Tariff notes, was 9,536 million pounds, as compared with 8,447 million pounds in 1959.

Output of crude products from petroleum and natural gas totaled 26,147 million pounds, up from 24,422 million pounds in '59.

Included in the latter group are ben-

—*Continued on page 47*

Ortho Pharmaceutical Head Will Address DCAT Meeting

Foster Whitlock, president of Ortho Pharmaceutical Corporation, will address the annual fall luncheon sponsored by the Drug, Chemical & Allied Trades Committee of the Young Men's Board of Trade, to be held October 31, at the Commodore hotel, New York.

Mr. Whitlock's subject will be "Whither Free Enterprise" and will deal with government interference and regulation of business in general with particular emphasis on the drug and chemical industries.

Proceeds of the luncheon will go to the annual orphan's Christmas shopping tour sponsored by the Young Men's Board of Trade.

Chlorine-Caustic Called Yardstick Of World's Gains

Chlorine and caustic soda may well be called a yardstick of the world's living standard, for "with untiring activity and wide afinity, these two products are the most useful with which the chemist works."

So Bert Cremers, president of Wyandotte Chemicals International, Inc., told the thirty-third International Congress of Industrial Chemistry in Bordeaux, France, last week.

Another report on last week's International Congress on Industrial Chemistry in Bordeaux, France, appears at the left.

In playing up the chlorine-caustic role, Mr. Cremers said:

"Not long ago the Manufacturing Chemists' Association in the United States proposed the seven wonders of modern chemistry—synthetic fibers, rubber, plastics and resins, agricultural chemicals, detergents, metals and medicines. Significantly, chlorine and caustic soda played a major role in these seven great achievements of applied chemistry."

World Production of Chlorine

Mr. Cremers pointed out that world production of chlorine in 1959 (the last year for which there were figures) reached a new record of 8 million short tons, with plants operating at approximately 81 percent of installed capacity. This record production, he pointed out, was made in 395 plants, operating in fifty-four different countries.

Turning to caustic soda, he reported that that material also set a new record in 1959, with total world production at 11.5 million short tons, or 79 percent of installed capacity. There were, Mr. Cremers said, 432 plants operating in fifty-four countries.

The speaker then presented his audience with a chart that showed the following information:

CHLORINE END-USE PATTERN
(thousand short tons)

	US	West Germany	UK	Canada
Chemicals	3,373	612	281	122
Pulp, Paper	726	27	33	171
Surfactants	—	—	70	6
Water Treatment	171	—	16	3
Miscellaneous	—	34	140	3
Total	4,270	673	540	305

"The chlor-alkali industry is far from a mature industry although the growth rate in the United States for chlorine production may well drop to 5 percent per year.

"Important end-uses will affect the rate, such as the trend toward the direct oxidation process for the production of ethylene oxide and ethylene glycol, and greater utilization of by-product hydrochloric acid. New aluminum capacity and other ore recovery may more than make up for the loss of rayon.

"The challenge for the future is certainly greater than it was in the past. These chemicals must be provided in suffi-

—*Continued on page 43*

Armour Develops 'Listica,' A New Tranquilizing Agent

A new agent, to relieve tension and anxiety and promote a normal state of mind without reducing acuity or motor response, has been developed by Armour Pharmaceutical Company, Chicago.

Called "Listica," the drug acts on the central nervous system to inhibit nerve impulses through the internuncial pathways. "Listica" is a new monocarbamate synthesized by the company. Its generic name is hydroxyphenemate and its chemical name is 2-hydroxy-2-phenylbutyl carbamate.

TGA's Big Test: Coaltar Dyes for Use in Cosmetics

Toilet Goods Association has put not one, but five, pharmacological laboratories to work on a massive program of toxicity tests for coaltar dyes used in cosmetics.

To finance the program, TGA entered into a contract establishing a trust fund with Chemical Bank New York Trust Company and an agreement with the Certified Colors Committee.

Under the agreement, manufacturers of certified colors will submit each month to the bank the names of companies which have purchased colors and the amount purchased.

The bank, in turn, will bill the purchasers at the rate of $1.50 a pound of color—an assessment deemed "sufficient to defray all the expenses of the testing program on the colors now listed for testing."

As the program got under way, TGA recorded its thanks to "several important color-using companies who advanced substantial sums to the fund against future billings."

Riding herd on the program is H. D. Goulden, scientific director of the association. Mr. Goulden plans to issue a bulletin in the near future giving scientific details on the actual testing program.

Looking ahead, TGA believes "a further program may have to be established at a later date to do work on colors not of coaltar origin and not previously certifiable under the law."

The five laboratories engaged by TGA are:

Food & Drug Research Laboratories, Inc., Maspeth, N. Y.; Hazleton Laboratories, Inc., Falls Church, Va.; Hazleton-Nuclear Science Corporation, Palo Alto, Calif.; Industrial Bio-Test Laboratories, Inc., Northbrook, Ill., and Leberco Laboratories, Roselle Park, N. J.

Meeting Dates
May Be Found
On Page 37

new!

alkaline-resistant polymers

for polishes that "lock" on to floors and last for months

There's no need for special equipment, materials, or techniques. Simply use a K-polymer from the new Morton Latex Series. You'll have a polish your customers can detergent-scrub and use for months on end. Yet, they'll be able to "unlock" it in seconds with a specific, mild-acid stripper.

NEW K-258 in your formulation makes a polish that's absolutely resistant to water and alkaline cleaning systems. Another feature: customers can recoat immediately after each application. In addition, polishes containing K-258 have every desirable characteristic usually associated with acrylic polishes.

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Chicago 6, Illinois

CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, October 6 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low many be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, cns. ..... lb. 1.90 - 2.40
Acacia (see Arabic gum).
Acetaldehyde, 99%, dms., c.l., frt. alld ... lb. .12 - —
dms., l.c.l., frt. alld ... lb. .13½- —
tanks, frt. alld ... lb. .10 - —
Acetaldehyde prices 1c. higher in West.
Acetaldol (see Aldol)
Acetanilide, tech., flaked, bbls., bgs., c.l., frt alld lb. .32½- —
bbls., bgs., ton lots, frt. alld, lb. .33½- —
bbls., bgs., smaller lots, frt. alld lb. .36½- —
USP bbls. 225-lb dms. any quantity lb. .90 - —
100-lb. dms., any quantity lb. .92 - —
Acetic acid, coml., or redist., 28%, bbls 100 lbs 4.80 - —
56%, bbls. ... 100 lbs 8.25 - —
70%, bbls. ... 100 lbs. 9.95 - —
80%, bbls. ... 100 lbs.10 45 - —
glacial, syn., CP, dms., c.l., divd. E 100 lbs. 13.75 - —
tech., dms., c.l., divd. E. 100 lbs. 13.75 - —
dms., l.c.l., divd. E ... 100 lbs. 15.25 - —
tanks, divd. E ... 100 lbs. 10.00 - —
USP, tanks, divd. E ... 100 lbs. 13.00 - —
Acetic anhydride, aluminum ret. dms., c.l., divd. E lb. .16½- —
aluminum ret. dms., l.c.l., divd E. lb. .18 - —
tanks, divd. E lb. .14 - —
Acetic anhydride prices 1c. higher in West.
Acetoacetanilide, fib. dms., c.l., divd lb. .79 - —
fib. dms., l.c.l., divd ... lb .71½- —
Acetoacet-o-chloroanilide, fib. dms., c.l., divd lb. 1.25 - —
fib. dms., l.c.l., divd ... lb. 1.26 - —
Acetoacet-o-toluidide, fib. dms., c.l., divd lb. .73 - —
fib. dms., l.c.l., divd ... lb. .74½- —
Acetone, CP, dms., c.l., divd lb. .09½- —
dms., l.c.l., divd ... lb. .11 - —
tanks, divd. ... lb. .07 - —
Acetonitrile, dms., c.l., frt. alld lb. .37½- —
dms., l.c.l., frt. alld ... lb. .39 - —
tanks, frt. alld ... lb. .35 - —
Acetophenetidin, USP, powd., 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb dms., 1,000 lbs., frt. alld. lb. 1.22 - —
Acetophenone, cns., dms ... lb. .42 - 1.30
Tech., dms., c.l., works ... lb. .32½- —
dms., l.c.l., works ... lb. .34 - —
tanks, works ... lb. .30 - —
N-Acetyl-p-aminophenol, dms., t.l. (min. 23,000 lbs.), frt. adjusted lb. 1.30 - —
dms., 1,000-lb. lots, same basis lb. 1.40 - —
dms., 100-lb. lots, same basis ... lb. 1.54 - —
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 - —
cs., l.c.l., ex whse ... lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 —
Acetylsalicylic acid, USP, cryst. (20, 40 mesh), powd. (80 mesh), 250-lb. dms., c.l., pt. of shipt lb. .56¼- —
USP 10% starch granulation, 12-50 mesh, white, 250-lb. dms., c.l., same basis lb. .58¼- —
(Pink and green granulations 5c. per lb higher.)
Freight equald, shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms. c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., t.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver, lb. .33 - —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., t.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver lb. .37 - —

ACIDS
Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. ... lb. .50 - .55
Acrolein, tech., dms., c.l., works lb .36 - —
dms., l.c.l., works ... lb. .36¼ - —
tanks, works ... lb. .31 - —
Acrylamide, dms., t.l., f.o.b. works. lb. .58 - —
dms., l.t.l., same basis ... lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., divd lb. .42½- —
dms., t.c.l., l.t.l., divd ... lb. .43½- —
tanks, divd. ... lb. .40 - —
tech., esterification, tanks, frt. alld. lb. .38 - —
tech., polymerization, tanks, same basis lb. .38 - —

Abies Siberica Oil—Ammonium Biborate

Acrylonitrile, dms., c.l., t.l., works lb. .17½- —
dms., l.c.l., l.t.l., same basis ... lb. .18½- —
tanks, same basis ... lb. .14½- —
Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., divd ... lb. .29 - —
bgs., l.c.l., divd ... lb. .31¾- —
Agar, USP, Kobe No. 1, strip, bls. lb. 3.00 - 3.10
powd., 30 mesh., fib. dms lb. 2.40 - 2.60
dl-Alanine, dms., 100-lbs or more, f.o.b works lb. 5.25 - —
dms., 1-99 lbs., same basis lb.10 00 - —
Aldol, 95%, dms., t.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd lb. .99 - —
fib. dms., t.c.l., divd lb 1.04 - —

Aletris root, bgs ... lb 1.50 - 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., divd. E. of Rockies lb. 2.45 - —
Alkali blue prices 1c. higher W of Rockies
Alleihrin, 90%, dms., frt. alld lb 28.80 - 28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt alld lb. 6.50 - 6.55
2½% dms frt alld. lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. divd. ... lb. .32½- —
dms., t.c.l., divd. ... lb. .34 - —
tanks, divd. ... lb. .30 - —
Allyl bromide 55-lb cbys 5,005 lbs or more, works lb. 1.50 - —
55-lb. cbys., 1,045 to 4,... lbs works lb. 1.55 - —
55-lb. cbys., 55 to 990 lbs works lb. 1.60 - —
Allyl chloride, dms., c.l., divd lb. 17½- —
dms., t.c.l., divd ... lb. .19 - —
tanks, divd ... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).

Abbreviations
Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	divd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz	ounce
		E.	east	p-	para
		e.p.	end point	Pac.	Pacific
a.p.a.	available phosphoric acid	equald.	equalized	pf.	proof
		exp.	expressed	phos.	phosphate
approx.	approximately	Ext.	external	photo.	photographic
artif.	artificial	F.	fahrenheit	pkgs.	packages
ASTM	American Society for Testing Materials	ferment.	fermentation	powd.	powdered
		f.f.a.	free fatty acid	precip.	precipitated
		f.f.c.	free from chlorine	prod.	producer
Atl.	Atlantic	fib.	fiber	pt.	point
Be.	Baume	f.o.b.	free on board	pulv.	pulverized
bbls.	barrels	f.p.a.	free of prussic acid	purif.	purified
bgs.	bags	frt.	freight	redist.	redistilled
bls.	bales	gal.	gallon	refd.	refined
bots.	bottles	gran.	granular	refy.	refinery
b.p.	boiling point	grd.	ground	reg.	regular
b.p.l.	bone phosphate of lime	i.&a.	iron and aluminum	resub.	resublimed
				ret.	returnable
b.r.	boiling range	t.b.p.	initial boiling point	SD	specially denatured
bxs.	boxes	imp.	imported	s.d.	single distilled
C.	centigrade	incl.	included	S E.	southeast
cbys.	carboys	indust.	industrial	sec.	secondary
CD	completely denatured	kgs.	kegs	secs	seconds
		l-	laevo	s.g.	specific gravity
c.i.f.	cost, insurance, freight	lacq.	lacquer	shipt.	shipment
		lb.	pound	soln.	solution
cks.	casks	l.c.l.	less carlots	s.u.	standard unit
c.l.	carlots	l.t.l.	less truckload	syn.	synthetic
cns.	cans	liq.	liquid	tanks.	railroad tankcars
coml.	commercial	mfrs.	manufacturers	tech.	technical
conc.	concentrated	m-	meta	tert-	tertiary
CP	chemically pure	m.a.p.	mixed aniline point	t.l.	truckloads
cps.	centipoises			t.w.	tankwagons
cryst.	crystalline	min.	minimum	USP	U.S Pharmacopoeia
cs.	cases	m.p.	melting point		
ctns.	cartons	N-	nitrogen	vis.	viscosity
cyls.	cylinders	n-	normal	VM&P	varnish makers & painters
d-	dextro	nat.	natural		
dbl.	double	neut.	neutral	W.	west
denat.	denatured	NF	National Formulary	whse.	warehouse
dest-dist.	destructively—distilled	NNR	New and Nonofficial Remedies	w.w.	water-white
dl-	dextro-laevo				
dist.	distilled				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Almond oil, artif., bitter (see Benzaldehyde)
Almond oil, nat., bitter, f.p.a., bots. lb. 2.75 - 3.40
NF, bots. ... lb. 3.00 - 3.30
sweet, USP, cns., dms. ... lb. .60 - .70
Aloe, Cape, cs. ... lb. 35 - .40
powd. cs. ... lb 60 - .65
Curacao, kgs. ... lb. .75 - —
powd., kgs. ... lb. .85 - —
Aloin, USP, bbls., dms., kgs ... lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpineol (see a-Terpineol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., c.l., works ... 100 lbs. 4.80 - —
Lump, dms., works ... 100 lbs. 5.55 - —
Powd., dms., works ... 100 lbs. 5.70 - —
Alum potassium, gran., bgs., c.l., works ... 100 lbs. 5.05 - —
Lump, dms., works ... 100 lbs. 5.80 - —
Powd., dms., works ... 100 lbs. 5.95 - —
Alum, potash-chrome, dms lb. .17 - —
Alumina, calcined bgs., c.l., works. lb. .0530- —
bgs., l.c.l., works ... lb. .0655- .0830
Aluminum acetate, basic, fib. dms., l.c.l., works lb. .54 - —
Aluminum chloride coml. anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms. l.c.l. works lb. .16¼- —
cryst., dms., c.l. works 100 lbs.21.00 - —
dms., l.c.l. works 100 lbs.21.50 - —
Soln., 32° cbys., c.l., works lb. .0495- —
cbys., l.c.l., works lb. .0570- .1095
tanks, works 100 lbs. 3.95 - —
NF, gran., dms. works lb. .31 - .33
Aluminum fluoride tech., anhyd., bgs., c.l., works lb. .16¼- —
bgs., t.c.l. works lb. .17¼- .19¼
bulk, c.l. basis 80% lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c per lb. higher
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs.11.00 - —
containers extra, t.c.l., works. 100 lbs.11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0370- —
bgs., 20,000-40,000 lb. lots, same basis lb. .0395- —
bgs., 2,000-20,000 lb. lots, same basis lb. .0495- —
bulk, c.l., same basis ... lb. .0330- —
Light, bgs., c.l., t.l., works ... lb. .08 - —
bgs., t.l., to c.l., works ... lb. .09 - —
bgs., l.t.l., works ... lb. .10 - —
Aluminum hydroxide, dried, USP XV, fib. dms., works lb. .82½- —
fib. dms., contract, works lb. 79½- —
gel, pharmaceutical, 14-15% Al_2O_3, fib. dms., works lb. .22 - —
9-9½% Al_2O_3, fib. dms., works. lb. .19 - —
fib. dms. contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb ingots, 10,000-lb lots, frt. alld lb. .2610- —
50-lb pigs, 10,000-lb. lots, frt alld. lb. .24 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste lining, extra-fine, 200-lb. dm., divd lb. .70 - —
Standard lining, dms ... lb. .47½- —
Aluminum powder lining, extra-fine, 250-lb. dm., divd lb. 1.12 - —
Standard lining, dms ... lb. .82 - —
Aluminum resinate, precip., 2.1% Al, dms lb. .45 - —
Aluminum stearate, dibasic, ctns., c.l lb. .39 - —
ctns., l.c.l. ... lb. .40 - .44
Monobasic, ctns., c.l. ... lb. .39 - —
ctns., l.c.l. ... lb. .40 - .44
Tribasic, ctns., c.l. ... lb. .39 - —
ctns., l.c.l. ... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton.41.00 - —
bulk, c.l., same basis ton.40.00 - —
lump, bgs., c.l., same basis ton.44.00 - —
iron-free, bgs., c.l., works, frt. equald 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald, 100 lbs. 4.30 - 6.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ... oz. 6.50 - 10.00
p-Aminoacetanilide, tech., paste, dms., frt. alld lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.35 - 1.60
Aminoazotoluene base, bbls., 100% basis lb. 1.15 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld lb. 2.15 - 3.85
p-Aminodiphenylamine, tech., solid, dms., frt. alld lb. 3.00 - —
Aminoethyl ethanolamine, dms., c.l., divd lb. .475 - —
dms., t.c.l., divd ... lb. .49 - —
tanks, divd. ... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
dms., t.c.l., frt. alld ... lb. .45 - —
tanks, frt. alld. ... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld ... lb. 1.25 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald, E. of Rockies ... ton.92.00 - —
refrigeration, tanks, works, frt. equald, E. of Rockies ... ton.94.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies. ton.95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l. works, frt. equald 100 lbs. 8.25 - —
bgs., l.c.l., same basis 100 lbs. 8.65 - 12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, 100-lb. dms., 1,000-lb. lots, works. lb. 1.90 - —
Ammonium biborate, gran., dms., c.l., works ton.325 - —
dms., ton lots, ex whse. 100 lbs.22.86 - —
dms., smaller lots, ex whse. 100 lbs.24.11 - —

Ammonium bicarbonate, dom., dms., c.l., works 100 lbs. 7.50 - —
dms., l.c.l., works 100 lbs. 9.50 - —
Ammonium bichromate, dms., works lb. .42 .43
Ammonium bifluoride, dms., dlvd lb. .2145 .2245
Ammonium bromide, NF, gran., dms., c.l. t.l. frt. equald lb. .44 - —
dms. l.c.l., same basis lb. .46 - —
Ammonium carbonate, USP, lump, dms. c.l lb. .15½- —
Ammonium chloride, white, tech., fine gran., bgs. c.l., works. 100 lbs 6.00 —
bgs., l.c.l., works 100 lbs 8.00 8.45
USP, gran., 250-lb. dm. lb. .20 - —
Ammonium citrate dibasic, 250-lb. dm f.o.b works lb .77 - —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works E lb. .45 - —
Ammonium hydroxide (see Ammonia aqeous).
Ammonium iodide, NF, 25-lb. jar, f.o.b. works lb. 4.51 - —
Ammonium lauryl sulfate, dms., c.l., frt. alld lb. .20½- —
dms., t.l.l., frt. alld lb .21½- —
tanks, frt. alld lb. .19½- —
Ammonium lignin sulfonate, bgs., bgs, l.c.l., works 100 lbs. 3.75 - 4.25
bgs., t.c.l., works 100 lbs. 3.40 - 3.65

Ammonium linoleate, 80%, dms., works lb. .50 - .55
Ammonium molybdate, CP, cryst., 400- lb dms., 15,000-lbs works. lb. 1.35 - —
400-lb dms., 2,000-lb. contracts, work lb. 1.36 - —
400-lb dms. works lb. 1.37 - —
Ammonium nitrate, dom., fertilizer grade, 33.5% N, bgs., f.o.b. works ton.67.00 - —
dom., with dolomite, 20.5% N, bgs., c.l., Hopewell, Va ton.44.00 - —
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point frt. equald to $3 ton base price ton.67.00 - —
Ammonium oxalate, tech., fine gran., 250-lb dm., f.o.b works E lb. .28½- —
Tech., powd., 200-lb. dm., same basis lb. .28½- —
Ammonium pentaborate, gran., bgs., c.l., works ton.193.00 - —
bgs., ton lots, ex whse 100 lbs.15.27 - —
bgs., smaller lots, ex whse 100 lbs.16.52 -18.52
Ammonium pentaborate powder $10 per ton higher in bags.
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 - —
dms., smaller lots, works lb. .20 - .23
Ammonium phosphate, comi., bgs., c.l., works, frt. equald lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —

Ammonium phosphate, dibasic, NF., V, bbls., dms. lb. .46 - —
Dibasic, tech., bgs., c.l., works, frt. alld lb. .09¼- —
Ammonium silicofluoride, dms., works lb. .12¼- .13¾
Ammonium sulfamate, bgs., c.l., t.l., works. lb. .19 - —
bgs., l.c.l., works lb. .20½- .27
Ammonium sulfate, standard granular, bulk, f.o.b. works, base price ton.32.00 - —
Purif., c.l., 100-lb. bgs., f.o.b. works lb. .08½- —
Ammonium sulfate, large granular, bulk, c.l., works ton.35.00 - —
bgs., c.l., works ton.40.00 - —
Tech., bulk, c.l., t.l., works ton.52.00 - —
bgs., c.l., t.l., works ton.56.00 - —
bgs., l.c.l., l.t.l., works 100 lbs. 3.20 - 5.20
Ammonium sulfide, liq., 40-44%, tanks, frt. equald., 100% basis. ton.160.00 - —
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).
Ammonium thiocyanate, tech., cryst., dms., c.l., works lb. .20 - —
dms., l.c.l., works lb. .22 - .26
Tech, soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17½- —
Ammonium thioglycolate, coml., 55-gal. dms., ton lots, 100% basis lb. 1.15 - —
d-Amphetamine hydrochloride, monobasic, dms lb.17.50 -23.50
dl-Amphetamine hydrochloride, dibasic, dms lb. 4.50 - 6.00
d-Amphetamine phosphate, 6b. dms., 100-lb. lots lb.15.00 - —
dl-Amphetamine phosphate, dms.lb. 4.20 - 5.60

d-Amphetamine sulfate, 6b. dms. lb.15.00 -17.00
dl-Amphetamine sulfate, 6b. dms., lb. 4.20 - 5.60
Amyl acetate, ex fusel oil, tech., dist., from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies lb. .18½- .19
dms., t.c.l., same basis lb. .20 - .20½
tanks, same basis lb. .16 - .16½
Amyl acetate, ex pentane, reg., dms., c.l., dlvd. lb. .19 - —
dms., t.c.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .16½- —
Tech., dms., c.l., dlvd lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Syn., oxo process, dms., c.l., dlvd. lb. .19 - —
dms., c.l., dlvd. lb. .20½- —
tanks, dlvd. lb. .16½- —
Amyl alcohol, ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. .43½- —
refd., ACS grade, dms., l.c.l., dlvd lb. .45½- —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., l.c.l., frt. alld lb. .20½- —
tanks, frt. alld. lb. .16½- —
Primary, dms., c.l., frt. alld lb. .20¼- —
dms., t.c.l., frt. alld lb. .21¾- —
tanks, frt. alld lb. .17¾- —
Sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., t.c.l., same basis lb. .20½- —
tanks, same basis lb. .17 - —
Tert-synthetic, dms., c.l., frt. alld. E lb. .17 - —
dms., t.c.l., frt. alld. E. lb. .18½- —
tanks, frt. alld. E. lb. .14½- —
1-pentanol (syn. normal), dms., c.l., works lb. .41½- —
dms., t.c.l., works lb. .43 - —
tanks, works lb. .39½- —
Amyl alcohol, 2-pentanol, dms., c.l., works lb. .65 - —
dms., t.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb. 1.70 - 2.20
p-tert Amyl phenol, dms., c.l., works. lb. .28 - —
dms., t.c.l., works lb. .29 - —
Amyl salicylate, cns., dms. lb. .71 - —
Amyris oil, dms. lb. 1.40 - 1.50
Anethol, tech., dms. lb. .80 - .92
USP, cns., dms. lb. 1.05 - —
Angelica root, bls lb. .50 - 1.00
Angelica root oil, bots lb.120.00 -140.00
Angelica seed oil, bots lb.120.00 -130.00
Aniline, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l. t.l., 20,000 lbs. min., frt. alld lb. .33 - —
dms., l.c.l., same basis lb. .35 - —
Anise oil, USP, dms lb. 1.90 - 3.00
Anise seed, Turkish, bgs lb. .24 - —
Spanish, bgs. lb. .34 - —
Anisic aldehyde, dms lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis lb. .82 - —
tanks, same basis lb. .78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½- —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5% bgs., c.l., frt alld lb. .70 - —
bbls., l.c.l., same basis lb. .73 - —
Electrical grade, bgs., l.c.l., same basis lb 1.10 - —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .32½- —
cs., c.l., mines lb. .33 - —
Antimony oxide, bgs., c.l., frt. alld. lb. .30 - —
bgs., l.c.l., frt. alld lb. .31½- —
Prices of antimony oxide are 2c. higher west of the Rockies.
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .44½- —
pails, l.c.l., works lb. .46½- —
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E lb. .69½- —
USP, powd., 250-lb. dm., same basis lb. .74½- —
Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms lb. .55 - .70
Arabic gum, amber sorts, 10 bgs. lb. .21 - .23
USP, powd., bbls lb. .27 - .30
Areca nuts, powd., bbls lb. .18 - .20
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 4.00 - —
l-Arginine, free base, dms., 10-kilo 5-kilo lots or more kilo.60.00 - —
l-Arginine glutamate, dms., 10-kilo lots or more kilo.64.80 - —
l-Arginine monohydrochloride, dms., 5-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. .75 - —
Aromatic petroleum solvents (see Solvent Naphtha, petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .031 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l., works lb. .06½- .07⅛
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb. 3.70 - —
Light shades, bbls. lb. 2.85 - —
Asafetida gum, cns lb. .36 - .40
Powd., bbls., dms lb. .75 - .80
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton.86.00 - —
7D, c.l. (30 tons), mines ton.75.00 - —
7F, c.l. (30 tons), mines ton.71.00 - —
7H, c.l. (30 tons), mines ton.61.00 - —
7K, c.l. (30 tons), mines ton.50.00 - —
7M, c.l. (30 tons), mines ton.44.00 - —
7R, c.l. (30 tons), mines ton.43.00 - —
7RF, c.l. (30 tons), mines ton.44.00 - —
7T, c.l. (30 tons), mines ton.41.00 - —
7TF, c.l. (30 tons), mines ton.44.00 - —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.
Ascorbic acid, USP, dms., 100-kilos. kilo. 5.60 - —
dms., less than 100-kilos kilo. 5.85 - —
Ash, black (see Barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.43.00 - —
ex-whse, 5 tons or more, N. Y., N. J ton.89.50 - —
select, brilliant black, 340°-360°F. fusing pt., bgs., c.l., mines. ton.46.00 - —
270°-295°F. fusing pt., bgs., c.l., mines ton.43.00 - —

Asphalt, petroleum, cut-back, tanks, tank-wagon, refy. gal. .09¼- —
emulsion, tanks, tankwagon, refy. gal. .09½- —
steam-refd., 50-80 penetration, tanks, tankwagon, refy. ton.21.00 • —
85-300 penetration, tanks, tankwagon, refy. ton.20.00 • —
Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins oz. Nom.
Atropine sulfate, USP, bots, 10 oz. lots oz. 5.25 • —
Azelaic acid, bgs., c.l., dlvd. lb. .37 • —
bgs., ton lots, same basis lb. .38 • —

B

Bacitracin, sterile, over 500,000,000 units 50,000 units. .90 • —
non-sterile, over 500,000,000 units. 50,000 units. .65 • —
Balm of Gilead buds, dried, bgs lb. 1.25 · 1.35
Barberry root bark, bgs lb. 1.00 · 1.10
Barbital, NF, 100-lb. dms., f.o.b. works lb. 4.50 • —
Barbital sodium, NF, 100-lb. dms. lb. 4.75 • —
Barium carbonate, precip., bgs., c.l., works ton.111.50 • —
bgs., smaller lots, works ton.126.50 • —
Barium chlorate, dms., works lb. .32 • .41
Barium chloride anhyd., bgs., c.l., works ton.176.00 • —
bgs., t.c.l., works ton.196.00 • —
NF, cryst., dms., 400-lbs., works lb. .23 • —
Tech., cryst., bgs. c.l., works, 100 lbs. 7.00 • —
bgs., t.c.l., works 100 lbs. 8.00 • —
Barium chromate, bgs., frt. equald. lb. .38 • —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 • —
bgs., t.c.l., t.l., frt equald ton.218.00 • —
Barium monohydrate, 99%, bgs., c.l., frt. equald 100 lbs.11.25 • —
bgs., t.c.l., frt. equald 100 lbs.11.75 • —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls. c.l., t.l., dlvd lb. .16 • —
bbls., t.c.l., t.l., dlvd. lb. .17 • —
Barium oxide, grd., dms., c.l., t.l., frt equald ton275.00 • —
dms. t.c.l., t.l., frt equald ton.285.00 • —
Barium peroxide, dms. frt. equald. lb .20 • —
Barium stearate, ctns. c.l., frt. alld. lb. .41 • —
ctns., t.c.l. same basis lb. .42 .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb. dm. lb. .19 • —
Barium sulfide, dms., c.l., works, ton.100.00 • —
dms., t.c.l., works ton.110.00 • —
Barytes, southern off-color, bgs. mines ton 30.00 • —
95-75%, bgs., mines ton.30.00 • —
white, water-grd paper bgs., c.l. St. Louis ton.60.00 60.25
paper bgs. ex whse New York ton 84.85 · —
Battery acid, cbys., c.l., works E. 100 lbs 2.35 · —
cbys., t.c.l., works, E. 100 lbs. 2.65 -10.95
Bauxite, bulk, mines ton 7.00 -10.00
Bay oil, NF, Puerto Rican, 50-55% cns. lb. 3.73 • —
NF, Dominica, 50-55%, cns., dms. lb. 3.60 • 4.50
Bayberry wax, bgs lb. .65 · .70
Beeswax, crude, African, bgs. lb. .53 • .54
Brazilian, bgs. lb. .57 • .58
Central American, bgs. lb. .55 • .56
Chilean, bgs. lb. .59 Nom.
Refd. USP bleached white, bricks, 100-lb. ctns lb. .67 • .69
white, slabs, 100-lb. ctns lb. .66 • .68
yellow, bricks, 100-lb. ctns lb. .60 • .62
yellow, slabs, 100-lb. ctns. lb. .59 • .61
Belladonna leaf, bls lb. .25 • .30
Belladonna root, bls lb. .35 • .38
Bentonite, dom 200 mesh, bgs., c.l., mines ton.14.00 • —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton.95.20 • —
bgs., 1-ton lots, ex whse ton.99.00 • —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse ton.93.40 • —
bgs., 1-ton lots ex whse ton.97.16 • —
Benzal chloride, cbys., works lb. .44 • —
Benzaldehyde, NF, dms. lb. .74 • —
Tech., dms., c.l., t.l. lb. .42 • —
dms., t.c.l lb. .44 • —
Benzene, industrial or nitration, tanks, works:
Baton Rouge, La. gal. .31 • —
Bethlehem, Pa. gal. .31 • —
Birmingham district gal. .31 • —
Chicago district gal. .31 • —
Cleveland district gal. .31 • —
Geneva, Utah gal. .31 • —
Houston, Tex. gal. .31 • —
Johnstown, Pa. gal. .31 • —
Lackawanna, N. Y. gal. .31 • —
Lone Star, Tex. gal. .31 • —
Lorain, Ohio gal. .31 • —
Mennequa, Colo. gal. .31 • —
Middletown, Ohio gal. .31 • —
Philadelphia district gal. .31 • —
Pittsburgh district gal. .31 • —
Port Arthur, Tex. gal. .31 • —
St. Louis, Mo. District gal. .31 • —
Sparrows Point, Md. gal. .31 • —
Syracuse, N. Y. gal. .31 • —
Terre Haute, Ind. gal. .31 • —
Youngstown, Ohio gal. .31 • —
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0073- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit. .0073- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 • —
bbls., t.c.l., same basis lb. 1.21 • —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 • —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 • —
AAOT, bbls., dlvd. lb. 2.55 • —
Lightfast, bbls., dlvd. lb. 3.40 • —
Benzocaine, dms., 100-lbs., frt. alld. lb. 3.25 • —
Benzoic acid, tech., dms., c.l., t.l., frt. alld lb. .25 · .37
dms., t.t.l., same basis lb. .29 · .41
tanks, same basis lb. .21 • —
USP, bbls., dms., ton lots lb. .48 • —
bbls., dms., 1,000-lb lots lb. .50 · —

BENZOL
Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs. lb. .32 —
Benzophenone, dms lb 1.35 · 1.40
Benzotriazole, tech. dms. 1,000-lb lots, works lb. 1.93 • —

Benzotrichloride, cbys., 1,000-lb. lots or more, frt. equald. lb. .21 • —
cbys., smaller lots, frt. equald. lb. .23 • —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 • —
cbys., t.c.l., same basis lb. .23 • —
tanktrucks, dlvd. Metropolitan area lb. .21 • —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 · 1.08
Benzyl acetate, f.f.c., cns., dms lb. .54 • —
Benzyl alcohol, NF, dms. lb. .54 • —
Tech., dms., dlvd. lb. .47½- .65
Benzyl benzoate, USP, 40-lb. dms. lb. .62 • —
Benzyl chloride, tech., dms., c.l., f.o.b. frt. equald lb. .23 • —
dms., t.c.l., same basis lb. .24 • —
tanktrucks, dlvd., Metropolitan area lb. .21 • —
Benzyl cinnamate, cns. lb. 3.80 • 4.00
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb. 1.25 • —
12-49 dms., same basis lb. 1.35 • —
1-11 dms., same basis lb. 1.90 • —
Benzyl formate, cns. lb. 1.70 · 1.85
Benzyl isoeugenol, cns. lb. 8.20 · 8.30
Benzyl propionate, bots. lb. 1.30 · 1.35
Benzyl salicylate, bots. lb. 1.50 · 1.85
Benzylidine acetone, bots. lb. 1.65 · 1.75
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate, cns. lb.56.50 • —
Berberine hydrochloride, bots. lb.56.50 • —
Bergamot oil, nat., NF, Italian, cns. lb.11.00 -12.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene).
Betanaphthol (see b-Naphtol).
Betanaphthylamine (see b-Naphthylamine).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin cryst., bots. gram.10.00 • —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns. lb. 1.50 · 1.90
Rectified, cns. lb. 1.75 · 2.00
Bismuth chloride, jars lb. b.11 —
Bismuth hydroxide, dms. lb 4.60 4.65
Bismuth metal, bxs. ton lots lb. 2.25 • —
Bismuth nitrate, cryst., 200-lb. dm. lb. 2.25 • —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.92 • —
Bismuth subcarbonate, USP, 25-lb. dm., f.o.b., works lb. 3.70 • —
Bismuth subgallate, NF, 200-lb. dm. f.o.b. works lb. 3.98 • —
Bismuth subiodide, fib. dms lb 5.37 • —
Bismuth subnitrate, NF, 200-lb. dm., f.o.b., works lb. 3.10 • —
Bismuth subsalicylate, USP, 100-lb. dm., f.o.b. works lb. 4.15 • —
Bismuth trioxide, 100-lb. dms., f.o.b. works lb. 4.40 • —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 • —
Bisphenol-A, bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld lb. .30½- —
bgs., c.l., t.l., less than 70,000-lbs., same basis lb. .31 • —
bgs., t.c.l., same basis lb. .32½- —
Blackberry root bark, bls. lb. .50 · .55

BLACK PIGMENTS
Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs. c.l. works ton 160.00 —
bgs., t.c.l., works ton.170.00 · —
bgs., t.c.l., New York whse ton 215.00 · —
Blood, dried 16-16½% ammonia, bgs., New York unit-ton 5.50 · — -
Bloodroot, bls. lb. .80 · .85

BLUE PIGMENTS
Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes).
Blue vitriol (see Copper sulfate).
Bois de rose oil, Brazilian, dms. lb. 1.90 · —
Peruvian, dms. lb. 1.65 — —
BON acid maroons, pure, bbls lb 1.75 — —
Resinated, bbls lb 1.50 · —
Bonemeal, steamed, works, E ton.100.00 —
Bone black, dms., c.l., frt. alld lb. .1750- .2225
t.c.l., works lb. .1950- .2425
Pacific coast bone black prices 3¼c. per lb. higher.
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).

Bone phosphate, precip (see Calcium phosphate, tribasic)
Borax, tech., anhyd., 99½%, bgs., c.l., works ton 92.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 7.67 - —
bgs., smaller lots, same basis. 100 lbs. 8.91 -10.91
bulk c.l. works ton 83.00 —
Tech., gran., decanydrate, 99½%, bgs., c.l., works ton 50.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 5.31 - —
bgs. smaller lots same basis 100 lbs. 6.56 - 6.56
bulk c.l. works ton 43.50 —
Tech., pentahydrate, 99½%, bgs., c.l., works ton 64.50 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 6.12 - —
bgs., smaller lots same basis 100 lbs. 7.37 - 9.37
bulk, c.l., works ton 58.00 —
USP, powd., bgs. c.l., works ton 54.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.57 - —
bgs., smaller lots, same basis 100 lbs. 7.82 - 9.82
Bordeaux powder tribasic bgs. c.l., dlvd lb. .24 - —
bgs., l.c.l., same basis lb. .26 - —
Boric acid, tech. anhyd. 99.9% bgs., c.l., works ton 335.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs 21.27 - —
Tech, anhyd., 99% bgs., smaller lots, same basis 100 lbs 22.52 -24.52
cryst. 99.9% bgs. c.l. works. ton 163.50 - —
Tech., cryst., 99.9%, bgs., ton lots, ex whse., New York or Chicago 100 lbs. 11.67 - —
bgs., smaller lots. same basis. 100 lbs. 12.92 -14.92
Boric acid, tech., cryst., 99.9%, dms., c.l., works ton 188.50 - —
dms., ton lots, ex whse., New York or Chicago 100 lbs. 13.17 - —
dms., smaller lots, same basis 100 lbs. 14.42 - —
gran., 99.9%, bgs., c.l., works. ton 112.00 - —
bgs. ton lots, ex whse. New York or Chicago 100 lbs. 8.78 - —
bgs. smaller lots. same basis. 100 lbs. 10.03 -12.03
dms. c.l., works ton 137.00 —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 10.29 - —
dms., smaller lots same basis 100 lbs. 11.54 - —
bulk c.l. works ton 106.00 - —
powd., bgs., ton lots, ex whse, New York or Chicago 100 lbs. 9.20 - —
bgs., smaller lots same basis 100 lbs. 10.45 -12.45
dms., ton lots, ex whse., New York or Chicago 100 lbs. 10.71 - —
dms., smaller lots, same basis 100 lbs. 11.96 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb. 2.75 - —
Boron trichloride CP 1,800-lb. cyls., works lb. 1.25 - —
100-lb. cyls. works lb. 1.70 - —
Boron trifluoride, gas, cyls., t.l., works lb. 70 - —
cyls., l.t.l., works lb. 70 - —
Brimstone (see Sulfur).
Broenner's acid bbls. lb. 1.53 - —
Bromine, purif. cs. c.l., t.l., dlvd. E of Rockies lb. .32 - —
cs., l.c.l., same basis lb. .34 - .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
ret. dms., l.c.l., same basis lb. .31 - .34
tanks, same basis .21½ - —
Bromochloromethane dms., c.l., frt. equald lb. .48 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Bromoform, pharmaceutical grade, 5-gal. cby., frt. equald lb. 1.95 - —
Bromstyrol, bots lb 5.25 5.35
Brucine, cns. oz. 1.10 - —
Brucine sulfate, NF, cns. oz. .85 - —
Buchu leaves, bbls. lb. .60 - .65

BROWN PIGMENTS

Brown pigment quotations are listed individually. For example prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, retd cyls. c.l., refy lb. .21 —
cyls., l.c.l., refy lb. .22 - —
tanks, dlvd lb. .12¾ - —
Butene-1, tanks, works lb. .0625 - —
Butene-2, tanks, works lb. .0570 - —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., same basis lb. .18½ - —
tanks, same basis lb. .14½ - —
Syn., dms., c.l., dvld. E lb. .17 - —
dms., l.c.l., same basis lb. .18½ - —
tanks, same basis lb. .14½ - —
sec-Butyl acetate, syn. dms., c.l., dlvd. E lb. .14¾ - —
dms., l.c.l., same basis lb. .16¼ - —
tanks, same basis lb. .12¼ - —
n-Butyl acrylate, dms. c.l. or t.l., straight or mixed frt., alld. E lb. .37½ - —
dms., l.t.l., same basis lb. .38½ - —
tanks, same basis lb. .35 - —
n-Butyl alcohol, ferment, dms., c.l., frt. alld lb. .18 - —
dms., l.c.l. frt. alld lb. .19½ - —
tanks, frt. alld lb. .15½ - —
Syn., dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., frt. alld lb. .19½ - —
tanks, frt. alld lb. .15½ - —
Sec-synthetic, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½ - —
tanks. dlvd lb. .12½ - —
Tert-synthetic, dms., c.l., frt. alld., dlvd. E lb. .16 - —
dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. .13½ - —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works lb. .37½ - —
dms., l.c.l., works lb. .38¼ - —
n-Butyl ether dms., c.l., works lb. .35¼ - —
dms., l.c.l., works lb. .36 - —
tanks, works lb. .33¼ - —
Butyl lactate, dms. c.l. frt. alld E. Rockies lb. .42½ - —
dms., l.c.l., same basis lb. .43½ - —
tanks, same basis lb. .40 - —
Butyl laurate, dms., works lb. .37½ - —
Butyl methacrylate, dms., c.l., t.l., works lb. .55 - —
dms. l.c.l., works lb. .55½ - —
Butyl oleate, dms., c.l., frt. alld lb. .26 - —
dms., l.c.l., frt. alld lb. .26½ - .27
Butyl phenylacetate, cms lb 4.50 4.60
Butyl phthalate (see Dibutyl phthalate).

Butyl stearate, CP, dms., c.l., frt. alld. E. of Rockies lb. .28½ - —
dms., l.c.l., frt. alld. E. of Rockies lb. .29 - .29¾
tech., dms., c.l., same basis lb. .25¾ - —
dms., l.c.l., same basis lb. .26¼ - .26¾
Butylamine (see Mono-, Di- and Tributylamine).
tert-Butylamine, dms., c.l., t.l., f.o.b. works lb. .47 - —
dms., l.c.l., same basis lb. .47½ - —
tc., t.t., same basis lb. .45 - —
Butylated hydroxyanisole, food grade, dms., dlvd. lb. 4.75 - —
6-tert-Butyl-m cresol (see Mono-tert-butyl-m cresol).
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
1,3 Butylene glycol, dms., c.l., t.l., dlvd lb. .20½ - —
dms., l.c.l., t.l., f.o.b. works lb. .22 - —
tanks, dlvd lb. .18 - —
p-tert-Butylphenol, bgs., c.l., frt. alld lb. .25½ - —
bgs., l.c.l., same basis lb. .26½ - —
tanks, same basis lb. .23½ - —
Butyraldehyde, dms., c.l., dlvd lb. .22 - —
dms., l.c.l., dlvd. lb. .23½ - —
tanks, dlvd lb. .19½ - —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 - —
dms., l.c.l., same basis lb. .34½ - —
tanks, same basis lb. .32½ - —
Butyric ether (see Ethyl butyrate).
Butyrolactone, dms., c.l., t.l., works lb. .40 - —
dms. l.c.l., same basis lb .43 - —
n-Butyronitrile, dms., c.l., dlvd lb. .56½ - —
dms., l.c.l., dlvd. lb. .57½ - —
tanks, dlvd. lb. .54 - —

C

Cacao butter (see Cocoa butter).
Cadmium CP red, dark shade, bbls., frt alld E of Rockies lb 5.55 - —
Light shade bbls. same basis lb 4.65 - —
Medium shade, bbls., same basis. lb. 5.30 - —
Medium, light shade, bbls., same basis. lb. 4.90 - —
Orange-red shade, bbls same basis lb 4.30 - —
Yellow, all shades, bbls. frt alld E. of Rockies lb. 3.02 - —
Cadmium chloride, 400-lb dms., f.o.b. shipping point lb. 1.56½ - —
Cadmium iodide, 25-lb tin dms lb 6.75 7.00
Cadmium metal, ingots or sticks, ton lots, cs. dlvd lb. 1.60 - —
Cadmium nitrate, purif cryst. 400-lb. dms., less than 5,000 lbs., f.o.b shipping point. lb. .94 - —
400-lb. dms., 5,000 lbs. or more, same basis lb. .90 - —
Cadmium mercury lithopone orange, deep shade bbls. frt alld E. of Rockies lb. 1.73 - —
Cadmium-mercury lithopone red, dark shade, bbls same Basis lb. 2.03 - —
Red, light shade bbls., same basis lb. 1.80 - —
Red, medium shade, bbls., same basis lb. 1.95 - —
Red, medium light shade bbls same basis lb. 1.88 - —
Red, maroon shade, bbls same basis lb. 2.11 - —
Cadmium-selenide lithopone maroon, bbls., frt alld E of Rockies lb. 2.84 - —
Orange, bbls., same basis lb. 1.66 - —
Cadmium-selenide lithopone red, orange-red shade bbls. same basis lb. 1.80 - —
Red, dark shade, bbls., same basis lb. 2.64 - —
Red, light shade, bbls., same basis lb. 1.96 - —
Red, medium shade, bbls., same basis lb. 2.31 - —
Red, medium-light shade bbls same basis lb. 2.08 - —
Cadmium-selenide, lithopone, yellow, all shades bbls., frt alld E. of Rockies lb. 1.27 - —
Caffeine NF chlorated dms. 100-lb lots or more lb 2.70 - —
USP, syn., cryst., hydrous, dms., 100-lb. lots or more, frt. alld lb. 2.25 - —
hydrous, powd., 150-lb. dms., frt. alld lb. 2.25 - —
USP, syn., cryst., anhyd., powd., dms., 100-lb. lots or more, frt. alld lb. 2.40 - —
Cajuput oil, native, cns. lb 1.75 2.00
Redist. USP cns lb 1.90 2.10
Calamine USP dms. lb .34 —
Calamus oil bots lb 12.00 -20.00
Calciferol, cryst., 10-kilo or more lots, works gram .54 - —
1-10 kilo lots gram .55 - —
Calciferol in edible oil (see Viosterol).
Calcium p aminosalicylate trihydrate fib. dms., 100 lbs. or more frt. adjusted lb 3.10 - —
Calcium bromide NF jars, 100 lbs. or more lb 1.10 - —
Calcium carbide standard generator size, 600-lb dms., c.l., dlvd ton 149.00 - —
Calcium carbonate, nat., dry grd., air floated, 325 mesh, bgs. c.l. works ton 10.50 —
Chalk, whiting, 325 mesh, bgs., c.l., works ton 32.00 -34.00
water-grd. ½ to 10 microns. bgs., c.l., works ton 30.00 —
10 to 30 microns. bgs., c.l., works ton 17.00 -18.00
Precip., dense, bgs., c.l., works. ton 30.00 -38.50
bgs. l.c.l., works ton 45.00 -53.50
medium bgs. c.l., works ton 38.00 —
bgs. l.c.l works ton 48.00 -53.00
Surface treated, bgs., c.l., works. ton 42.00 -44.00
bgs., l.c.l., works ton 57.00 -59.00
ultrafine bgs. c.l., works ton 117.50 167.50
bgs l.c.l. works ton 137.50 187.50
Calcium chloride conc., flake or pellet 94-97% paper bgs., c.l. works, frt equald ton 39.30 - —
Flake, 77-80% paper bgs., c.l., works, frt equald ton 32.00 - —
Liquor, 40% tanks frt equald ton 12.50 - —
Powd., 77% min., paper bgs., c.l., works, frt, equald ton 38.00 - —
Purif., gran dms lb 27 —
Solid, 73-75%, dms., c.l., frt. equald ton 30.50 - —
dms. l.c.l. works frt. equald ton 36.00 -73.00
USP gran. dms. lb .32 —
Calcium chromate, bgs., dlvd lb .37 —
Calcium cyclamate, 100-lb dms lb 1.95 - —
Calcium gluconate, USP, AA grade, 100-lb dm., ton lb. 73½ - —
USP powd. 100-lb dm. ton lb. 66½ - —
Calcium hydride, lump, dms., works lb. 2.20 - 3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd. E. of Rockies cs. 27.50 - —
100-lb. dms., same basis dm. 39.50 - —
Calcium hypophosphite, dms., 1,000-lb. lots lb. 1.28 - —
Calcium iodide, 25-lb. jars, works, lb. 4.27 - —
Calcium lactate NF, dms., f.o.b. works lb. .43 - .46
Calcium mandelate USP, 150-lb. dm., works lb. 3.25 - —
Calcium naphthenate, liq. 4% Ca., dms., frt equald lb. .30 - —
Calcium pantothenate, USP, 1 kilo or more kilo. 20.00 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenosulfonate dms lb. 1.24 - 1.25
Calcium phosphate dibasic, USP, dihydrate, bgs., c.l., frt. equald 100 lbs. 8.25 - —
Feed grade, 18½% P, bgs., c.l., t.l., Bonnie, Fla., frt. equald ton 81.00 - —
bgs. c.l., t.l., f.o.b. Texas City works ton 75.50 - —
Feed grade, 21% P., bgs., c.l., t.l., frt. equald ton 97.65 - —
bgs., t.c.l. frt equald ton 107.65 - —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs. c.l. prices
Monobasic, bgs., 10,000-lb. lots, frt. equald 100 lbs. 7.45 - —
bgs., smaller lots same basis. 100 lbs. 7.95 - —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 - —
bgs. t.c.l. frt. equald. 100 lbs. 10.00 - —
Calcium propionate, any quantity, dms., dlvd E. of Rockies. lb. .34½ - —
Prices W of Rockies 3c. per lb more.
Calcium phytate bgs., 50 lbs. or more f o b warehouse N Y lb. .39 - —
Calcium resinate, precip., dms., frt, alld., works lb. .45 - —
Calcium silicate hydrated, bgs., c.l., works lb. .06½ - —
bgs., l.c.l., works lb. .07 - —
Calcium silicate paint grade (see Wollastonite).
Calcium stearate, ctns., c.l. lb. .39 - —
ctns., l.c.l lb. .40 - .44
Calomel, NF mild, powd., dms., 100-lbs., f.o.b. works lb. 4.32 - —
NF mild, precip., dms., 100-lbs., f.o.b works lb. 5.67 - —
Camphene 46° m.p. dms incl., c.l., works lb. .15 - —
dms. incl., l.c.l. same basis lb. .16½ - —
tanks, same basis lb. .12½ - —
Camphene chlorinated 67-69% (see Toxaphene)
Camphor, monobromated, NF, dms., kgs lb. 3.63 - 3.70
Camphor, syn. tech., 1 bbl. or more. lb. .45 - —
USP, powd., bbls., 1,000-lb. lots lb. .56 - —
bbls., smaller lots lb. .57 - —
tablets, ctns., 1,000-lb. lots. lb. .80 - —
ctns., 500-lb. lots lb. .81 - —
ctns., smaller lots lb. .82 - —
Camphor oil, sassafrassy, dms. lb. .32 - .50
White, dms. lb. .24 - .40
Canauga oil, native, cns. lb. 5.00 6.50
Rectified, cns. lb. 7.25 -10.00
Candelilla wax, crude, bgs. lb. .57 - .59
Refd., pure, bgs. lb. .61 - .63
Powdered Candelilla wax 20 to 100 mesh 8c higher.
Cantharides, Chinese, cs. lb. 1.00 - —
powd., bgs. lb. 1.15 - —
Russian, bgs. lb. 2.00 2.15
powd. bgs. lb. 2.15 2.30
Capric acid, dms. lb. .27¼ - .29¾
tanks lb. .24¾ - —
Caprolactam monomer, flake, bgs., c.l., t.l., f.o.b. frt. equald. lb. .49 - —
bgs., l.c.l., l.t.l., same basis lb. .54 - —
molten, tanks, same basis lb. .46 - .462
Capryl alcohol 85% dms., c.l., t.l., works lb. .19 - —
dms., l.t.l., same basis lb. .19½ - —
tanks, frt. equald. lb. .16½ - —
Sec., 92-99% dms., c.l., f.o.b. works lb. .22 - —
dms., l.c.l., f.o.b. works lb. .23 - —
tanks, f.o.b. works lb. .19½ - —
Caprylic acid, dms lb. .27¼ - .29¾
tanks lb. .24¾ - —
Capsicum (see Pepper red).
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin NF, from dom. pepper, dms lb. 4.00 - —
NF, from African pepper, dms. lb. 4.50 - —
Caraway oil, NF, dms lb. 4.25 - 4.50
Caraway seed Danish, bgs. lb. .16 —
Dutch, bgs. lb. .16¼ - —
Carbazole, 97%, bbls, ton lots, works lb. 1.05 - —
Carbon black, channel, rubber beads, bulk, c.l. works lb. .08 - —
bgs., c.l., works lb. .08½ - —
bgs., l.c.l., ex whse. or dlvd lb. .16¼ - —
Furnace, fast extruding, bulk, c.l., works lb. .06¼ - —
bgs., c.l., works lb. .06¾ - —
bgs., l.c.l., ex whse lb. .13½ - —
high abrasion, bulk, c.l., works lb. .07¼ - —
bgs., c.l., works lb. .07¾ - —
bgs., l.c.l., dlvd. or ex whse lb. .14½ - —
Carbon black, high modulus, bulk, c.l., works lb. .05¾ - —
bgs., c.l., works lb. .06¼ - —
bgs., l.c.l., ex whse lb. .13 - —
semi-reinforcing, bulk, c.l., works lb. .05¼ - —
bgs., c.l., works lb. .05¾ - —
bgs., ctns., l.c.l. ex whse lb. .12½ - —
pigment, high color beads, bgs., c.l., works lb. .78 - —
ctns., l.c.l., dlvd. or ex whse lb. .87 - —
medium color, uncompressed, bgs., c.l., works lb. .14 - —
bgs., l.c.l., dlvd. or whse lb. .22½ - —
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E ton. 60.00 -115.00
bulk, 3,000,000 lbs. or more, dlvd Metropolitan areas, E ton. 55.00 - —
Solid, bulk, wholesale, works ton. 85.00 - —
Carbon disulfide, 55-gal dms., c.l., works, frt. equald to competitive points lb. .071 - —
55-gal. dms., l.c.l. same basis lb. .086 - .091
5-gal. dms., 30 dms. to c.l., same basis lb. .131 - —
5-gal. dms., less than 30 dms., same basis lb. .161 - —
tanks, f.o.b. works lb. .0450 - —
Carbon tetrachloride CP, consumers, dms., c.l., frt. alld. lb. .12¾ - —
dms., l.c.l. frt alld. lb. .15¼ - —
Tech., consumers dms., c.l., t.l., frt. alld lb. .11¾ - —
dms. l.c.l. t.l.t. frt. alld lb. .14¼ - —
tanks frt alld lb. .10¾ - .11¼
Carboxymethyl cellulose (see CMC).
Carbromal, NF dms., 100-lb lots, works lb. 4.00 - 4.25
dms., smaller lots, works lb. 4.10 - 4.75
Cardamom oil, NF, bots lb. 40.00 -43.00
Cardamom seed, bleached "A" lb. 3.20 - —
Bleached "B" lb. 3.10 - —
Decorticated Alleppey, cs lb. 2.60 - —
Guatemala, cs. lb. 2.60 - —
Green, Alleppey, bgs. lb. 1.95 - —
Ceylon, bgs. lb. 2.00 - —
Carmine No. 40, NF, bulk, 100-lb. lots or more, dlvd. lb. 16.80 - —
bulk, smaller lots, dlvd. lb. 16.90 -17.30
Carnauba wax, chalky, bgs., ton lots. lb. .60 - .62
North Country, No. 2, crude, bgs., ton lots lb. .64 - .65
refd., pure, ton lots lb. .74 - .76
North Country, No. 3, Ceara, crude, ton lots lb. .57 - .59
North Country, No. 3, Parnahyba, crude, ton lots lb. .60 - .62
No. 3, refd., pure, bgs., ton lots. lb. .67 - .69
No. 1, Ceara, yellow, bgs., ton lots. lb. .90 - .92
Parnahyba, yellow, bgs., ton lots. lb. .92 - .94
Powdered carnauba wax, 20 to 100 mesh 8c. per lb. higher.
Carotene tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram .20½ - —
in carrot oil, 5,000,000 to 8,000,000 A units per lb. dms., works million units. .12 - —
USP microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units. .144 - —
b-Carotene, in vegetable oil, semi-solid suspension 400,000 A units per gram cns kilo. 57.60 - —
b-Carotene, liquid in vegetable oil, 500,000 A units per gram. cns kilo. 72.00 - —
b-Carotene, pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns kilo. 240.00 - —
Carvol, bots. lb. 5.00 5.40
Cascara sagrada bark, bulk lb. .32 - —
Casein, dom., edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works lb. .56 - —
80 mesh, bgs., 10,000-lb. lots or more, works lb. .64 - —
Imp., inedible, acid-precip., gro., Argentine, bgs., c.l. ex-dock, Eastern seaport lb. .18⅜ - .18⅞
Australian, bgs., c.l. same basis lb. .21 - .21½
New Zealand, same basis lb. .24 - .25
Cashewnut shell liquid treated, dms., c.l., Newark, N.J lb. .24 - —
dms. ton lots, same basis lb. .25 - —
t.w., same basis lb. .22½ - —
Cassella acid dms. frt. alld., 100% basis lb 1.44 1.75
Cassia oil, redist., USP, cns. lb. 6.50 - 8.00
Cassia, Padang, "A," bls. lb. .28½ - —
"B," bls. lb. .27½ - —
"C," bls. lb. .25½ - —
Korintje "A," bls. lb. .27½ - —
"B," bls. lb. .26½ - —
"C," bls. lb. .25¼ - —
Castor oil, dom., blown, dms., c.l. lb. .2550 - —
dms., l.c.l. lb. .2650 - —
dehydrated, bodied, dms., c.l. lb. .2710 - —
dms., l.c.l. lb. .2860 - —
tanks lb. .2510 - —
dehydrated, unbodied, dms., c.l., lb. .2560 - —
dms., l.c.l. lb. .2660 - —
tanks lb. .2360 - —
hydrogenated, bgs., c.l. lb. .2625 - —
bgs., ton lots lb. .2625 - —
bgs., l.c.l., dlvd lb. .3025 - —
raw, No. 1, dms., c.l. lb. .2200 - —
dms., l.c.l. lb. .2300 - —
tanks lb. .2000 - —
No 3, tech., dms., c.l. lb. .2125 - —
dms., c.l., lb. .2225 - —
tanks lb. .1925 - —
refd., deod., dms., c.l. lb. .2450 - —
dms., l.c.l. lb. .2750 - —
tanks lb. .2450 - —
USP, dms., c.l. lb. .2550 - —
dms., l.c.l lb. .2450 - —
tanks lb. .2150 - —
Imported, No. 1, Braz., tanks, New York— lb. .16¾ - —
No. 3, tanks, same basis lb. .16¼ - .16½
Sulfonated, 50%, dms., works lb. .15 - .15½
75% dms. works lb. .19 - .19½
Castor oil acids, dehydrated, dms. lb. .41¼ - .43¼
Split, dms. lb. .33¾ - .34¾
Castor pomace, bgs., c.l., works ton. 35.00 - —
Castoreum nat., cns. lb. 5.25 - —
Syn., cns. lb. 9.00 - —
Catechol, CP, cryst., fib., dms., works lb 2.17½ - —
Resub., dms., works lb 4.29½ —
Catnip leaves, Southern, bls lb. Nominal.
Caustic potash (see Potash caustic).
Caustic soda (see Soda, caustic)
Cedarleaf oil, USP XIII cns., dms lb. 3.30 - 3.50
Cedarwood oil, cns., dms. lb. 1.10 - 1.25
Celery seed oil lb. 12.00 - —
Celery seed, French, bgs. lb. .35 - —
Indian, bgs. lb. .26 - —
Cellulose acetate, flake, powd., bgs., t.l., dlvd E lb. .36 - .51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd E lb. .545 - .555
27% butyryl content, bgs. dlvd. E lb. .595 .605
38% butyryl content, bgs., dlvd. E lb. .545 - .555
38% butyryl content, half-second, bgs., dlvd. E. lb. .545 - .555
50% butyryl content, bgs. dlvd. E lb. .585 - .595
Cellulose gum, methyl (see Methyl Cellulose).
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works frt alld lb. .57 - —
bgs., smaller lots, same basis lb. .59 - —
standard, low or medium vis., bgs., c.l., t.l., frt. alld. E lb. .57 - —
bgs., ton lots, frt. alld. E. lb. .59 - —
(Cellulose gum prices 1c. per lb. higher in west.)
Cerium hydrate 74% CeO, fib. dms., 100-lb. lots or more lb. 1.40 - —
77% CeO, fib. dms., 100-lb. lots or more lb. 1.74 - —
Cerium oxalate (see Rare earth oxalate).
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd. lb. 1.85 - 1.90
bgs., smaller lots, dlvd. lb. 2.15 - —
Cetyl alcohol, NF, fib. cns., c.l., t.l., dlvd. E lb. .41½ - —
fib. cns., l.c.l., same basis lb. .43¼ - —
tanks, same basis lb. .39 - —
Extra, cns., c.l., t.l., dlvd. E lb. .48½ - —
fib. cns., l.c.l., same basis lb. .50½ - —
tanks, same basis lb. .46 - —
Chalk (see Calcium carbonate)
Chamomile flowers, Hungarian, lb. .95 - 1.10
Roman, cs. lb. 1.75 - 2.00
Chamomile oil, blue Hungarian bots lb. 350.00 - —

Charcoal, activated, NF, fib., dms., c.l., works	lb.	.34	—
fib., dms., 5-ton lots, works	lb.	.35	.35½
fib. dms., smaller lots, works	lb.	.36	.50
Charcoal, black (see Charcoal, activated).			
Charcoal, bone (see Bone black).			
Charcoal, hardwood, lump, bulk, c.l., f.o.b. plant	ton.	55.00	—
briquets, bulk, c.l., f.o.b. plant	ton.	80.00	—
5-lb. paper bgs., c.l., same basis	ton.	106.00	—
20-lb. paper bgs., c.l., f.o.b. plant,	ton.	90.00	—
40-lb. paper bgs. c.l., same basis	ton.	86.00	—
Chenopodium oil, NF, cns	lb.	4.70	4.90
Chicago acid, paste, bbls., frt. alld.	lb.	3.21	—
Chinawood oil (see Tung oil).			
Chloral, tech., 94% min., dms., c.l., works	lb.	.23	—
dms., l.c.l., works	lb.	.24	—
tanks, multiple units, 5 cars, dms., l.c.l., works	lb.	.21	—
Chloral hydrate, USP, jars, 1,000-lb. lots	lb.	1.00	—
jars, 500-lb. lots	lb.	1.03	—
jars, 100-lb. lots or less	lb.	1.05	—
Chlordan, agricultural, dms., c.l., frt. alld	lb.	.65	—
dms., l.c.l., 5,000-10,000-lb. lots, frt alld	lb.	.66	—
clarified, dms., c.l., frt. alld	lb.	.69	—
dms., l.c.l., 5,000-10,000-lb. lots, frt alld	lb.	.70	—
Chlorinated paraffin, 40%., dms., c.l., frt. alld	lb.	.15	—
dms., l.c.l., 10 dms. or more, same basis	lb.	.16	—
70%, dms., c.l., same basis	lb.	.18½	—
dms., l.c.l., 10 dms. or more, same basis	lb.	.19½	—
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works	lb.	.60	—
ctns., l.c.l., works	lb.	.61	—
125 cps., ctns., c.l., works	lb.	.70	—
300 cps., ctns., c.l., works	lb.	.80	—
Chlorine, liq., cyls., c.l., works, frt. equald	lb.	.11	—
cyls., l.c.l., Metropolitan area, same basis	lb.	.12½	.13¼
tanks, single units, works, frt. equald	100 lbs.	3.25	—
tanks, multiple units, 5 cars, works, frt. equald, same basis	100 lbs.	4.15	—
tanks, multiple units, 4 cars, same basis	100 lbs.	4.35	—
tanks, multiple units, 2 cars, same basis	100 lbs.	5.35	5.83
tanks, multiple units, 1 car, same basis	100 lbs.	6.25	7.25
Chloroacetic acid, mono, flake, 99%, purif., dms., c.l	lb.	.23½	.25½
dms. l.c.l.	lb.	.24½	—
Tech., flake, 96-97%, dms., c.l., frt. equald	lb.	.19	—
dms., l.c.l., frt. equald	lb.	.20	—
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld	lb.	1.03	—
4-Chloro-2-aminotoluene, fused, bbls.	lb.	1.38	—
6-Chloro-2-aminotoluene, tech., liq., dms., frt. alld	lb.	.68	—
m-Chloroaniline, dms., c.l., frt. alld.	lb.	.75	—
dms., l.c.l., same basis	lb.	.77	—
tanks, same basis	lb.	.73	—
o-Chloroaniline, dms., c.l., frt. alld.	lb.	.52	—
dms., l.c.l., same basis	lb.	.54	—
tanks, same basis	lb.	.50	—
p-Chloroaniline, dms., c.l., frt. alld.	lb.	.77	—
dms., l.c.l., same basis	lb.	.79	—
o-Chlorobenzaldehyde, dms., t.l., works	lb.	1.05	—
dms., t.t.l., same basis	lb.	1.20	—
p-Chlorobenzaldehyde, dms., l.c.l., works	lb.	1.95	—
o-Chlorobenzoic acid, fib. dms., t.l., works	lb.	1.10	—
fib. dms., smaller lots, works	lb.	1.25	—
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works	lb.	2.25	—
fib. dms., less than 2,000-lbs., same basis	lb.	2.30	—
Chloroform, tech., dms., c.l., divd. E	lb.	.18	—
dms., l.c.l., same basis	lb.	.19	—
tanks, same basis	lb.	.17	—
USP, dms., c.l., divd	lb.	.27	—
dms., l.c.l., divd.	lb.	.30	—
tanks, minimum 4,000 gals. divd.	lb.	.25	—
2-Chloro-4-nitroaniline, paste, divd. E., 100% basis	lb.	.90	—
Powd., divd. E., 100% basis	lb.	1.00	—
4-Chloro-2-nitroaniline, powd., divd. E	lb.	.86	—
4-Chloro-2-nitrophenol, tech., paste, dms., frt. alld	lb.	.75	—
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld	lb.	.99	—
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld	lb.	.23	—
o-Chlorophenol, dms., c.l., frt. equald	lb.	.37	—
dms., l.c.l., same basis	lb.	.38	—
p-Chlorophenol, dms., c.l., frt. equald	lb.	.37	—
dms., l.c.l., same basis	lb.	.38	—
Chloropicrin, coml., cyls., 180 lbs., frt. alld	lb.	1.07	—
cyls., 100 lbs., same basis	lb.	1.08	—
cyls., 50 lbs., same basis	lb.	1.14	—
Chlorosulfonic acid, dms., c.l., frt. equald	lb.	.0463-	—
dms., l.c.l., frt. equald	lb.	.0515-	—
tanks, frt. equald	lb.	.0415-	—
Chlorosulfonic acid, in stainless steel dms. ½c. per lb. higher			
o-Chlorotoluene, tech., dms., t.l., works	lb.	.37	—
dms., l.c.l., t.t.l., same basis	lb.	.38	—
Choline bitartrate, 100-lb. dms., frt. equald	lb.	1.23	—
Choline chloride, 100-lb. dms., frt. equald	lb.	1.25	—
Choline dihydrogen citrate, 100-lb. dms., frt. equald	lb.	1.25	—
Chrome green, CP, dark, light, medium blue content, 1-15%, bbls., divd. E. of Rockies,	lb.	.43	—
blue content, 16-30%, bbls., same basis	lb.	.44	—
41-45%, bbls., same basis,	lb.	.44	—
blue content, 45-49%, bbls., same basis	lb.	.45	—
reduced color 25%, bbls., same basis	lb.	.20	—
Chrome green prices 1c. higher W. of Rockies.			
Chrome orange, CP, bbls., divd. E. of Rockies	lb.	.35	—
Chrome orange prices 1c. higher W. of Rockies.			
Chrome yellow, CP, bbls., divd. E. of Rockies	lb.	.28	—
Chrome yellow price 1c. higher W. of Rockies.			
Chromic acid, 99¾%, dms., c.l., works, frt. equald	lb.	.29½	—
dms., l.c.l., divd., N. Y. Metropolitan area	lb.	.30	.31
Chromic acid, NF (see Chromium trioxide).			
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works,	lb.	.10	—
Chromium fluoride, bbls., works	lb.	.51	.52
Chromium oxide, hydrated, bbls., fib. dms., c.l., frt alld.	lb.	1.20	—
Pure, bgs., c.l., frt. alld	lb.	.44½	—
bgs., l.c.l., same basis	lb.	.45½	—
Chromium trioxide, NF, bots	lb.	1.15	—
Cinchona bark, NF, red, broken, bgs	lb.	.25	—
NF, yellow broken, bgs	lb.	.35	.40
Cinnamic acid, refd., bots	lb.	2.50	3.50
Cinnamic alcohol, bots	lb.	1.50	1.60
Cinnamic aldehyde, dms.	lb.	.80	1.00
Cinnamon, Ceylon, No. 2, bgs.	lb.	.55	—
Ceylon, No. "0000," bgs.	lb.	.64	—
Cinnamon bark oil, bots	lb.	55.00	74.00
Cinnamon leaf oil, crude, dms.	lb.	1.60	2.00
USP. (Cassia), cns., dms	lb.	8.50	13.50
Citral, CP, bots	lb.	4.65	5.55
Extra, bots	lb.	5.00	7.25
Syn., dms.	lb.	6.10	6.65
Citric acid USP anhyd., fine gran., bgs., dms., c.l	lb.	.29½	.30
bgs., dms., 10,000-lb. lots, 1 shipt	lb.	.30	.30½
bgs., dms., smaller lots	lb.	.30½	.31
USP, hydrous, fine gran., bgs., dms., c.l	lb.	.27½	.28½
bgs., dms., 10,000-lb. lots, 1 shipt	lb.	.28	.28½
bgs., dms., smaller lots	lb.	.29	.29½
Powdered citric acid ½c. per lb. higher.			
Citronella oil, Ceylon, dms	lb.	1.05	—
Formosan, dms.	lb.	1.05	—
Citronellol, bots., dms.	lb.	1.90	2.50
Synthetic, dms.	lb.	1.70	—
Civet, artif., bots	lb.	13.75	15.00
Nat., bots.	oz.	8.50	15.00
Clay, ball., dom., airfloated, bgs., c.l., Tenn.	ton.	17.50	31.50
crushed, shed moisture, bulk, c.l., Tenn.	ton.	8.00	11.25
imp., airfloated, bgs., c.l., Atl. port	net-ton.	43.00	47.00
lump, bulk, Atl. port	net-ton.	31.50	37.50
Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia, bgs., c.l., works.	ton.	11.00	17.00
Georgia, bgs., l.c.l., works.	ton.	13.50	22.50
Imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me.	long-ton.	23.00	35.00
white, powd., bgs., c.l., ex dock.	net-ton.	50.00	—
bgs., l.c.l., ex whse	net-ton.	60.00	70.00
Cleaner's naphtha, petroleum, 105°F Flash, tankcars, New Jersey and New York	gal.	18	—
Group 3	gal.	.12375	—
Houston, Texas	gal.	.145	—
140°F Flash, tankcars, New Jersey or New York	gal.	.203	—
Group 3	gal.	.154	—
Houston, Texas	gal.	.17	—
Cleve's acid, tech., mixed, solid, dms., frt. alld	lb.	1.05	—
1.6, tech., solid, dms. frt. alld	lb.	.77	—
1.7 tech., dms. frt. alld.	lb.	2.42	—
Clove bud oil, USP, dms.	lb.	2.53	—
Cloves, Madagascar, bgs.	lb.	.38	.39½
Zanzibar, bgs.	lb.	.39	.42
Clove leaf oil, crude, dms.	lb.	1.10	—
CMC, crude, 96.4% low or medium vis bgs., 23,000 lbs., dvld. E., 100% basis	lb.	.40	—
98.4% low, or medium vis., bgs., less than 23,000 lbs., dlvd. E., 100% basis	lb.	.42	.44
65%, low or medium vis., bgs., c.l., dlvd. E., 100% basis	lb.	.40	—
l.c.l., dlvd. E., 100% basis	lb.	.42	.50
CMC, purif. high vis. (see Cellulose gum).			
CMC prices W. of the Rockies are ½c. (per lb. higher and are on a dlvd. basis.			
Coaltar, crude, resale for soln., tanks, works	gal.	.17	—
Refd., resale, indust., dms., c.l., ex whse	gal.	.35	—
dms., l.c.l., ex whse	gal.	.39	—
tanks, works	gal.	.20½	—
Coaltar pitch, aluminum, bulk, Works	ton.	42.00	—
Carbon, bulk, works	ton.	42.00	—
Indust., bulk, works	ton.	44.00	—
Core, bulk works	ton.	40.50	—
Fiber, bulk, works	ton.	48.00	—
Roofing, 140-155°F., Federal Specification RP-381 Type 1, tanks, works	ton.	41.00	—
Cobalt acetate, 23.7% Co., dms., dlvd.	lb.	1.04	—

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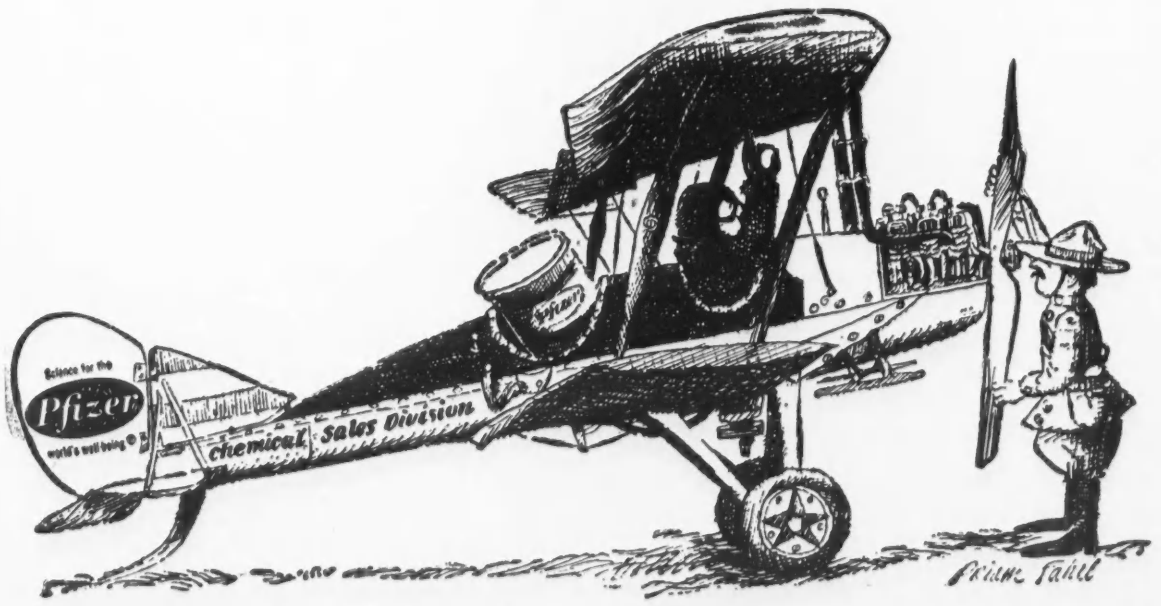
*TM.



Cobalt blue, genuine, 250 lb. bbls., dlvd E of Rockies lb 4.90 - —
Cobalt blue prices 1c higher W of Rockies
Cobalt blue imitation (see Ultramarine blue)
Cobalt carbonate 48% Co., powd., bgs., dlvd lb 1.45 - —
Cobalt chloride, 24.2% Co., dms., dlvd lb .93 - —
Cobalt hydrate, 60-61% Co., dms., dlvd lb 1.97 - —
Cobalt linoleate, fused 8½% Co., dms lb .71½ — —
Liq., 6% Co., dms lb .44 - —
Cobalt metal, 99% dms., f.o.b. carrier lb 1.50 - —
Cobalt naphthenate liq. 6% Co., dms. dlvd lb. 48¾ — —
Cobalt nitrate 20.1% Co. bbls. dlvd. lb .75 - —
Cobalt oxide, black, ceramic grade, 72½ 73¼% Co., kgs., dlvd E of Mississippi R lb 1.15 - —
70-71% Co kgs. same basis lb 1.12 — —
Cobalt oxide prices W of Mississippi R 3c. per pound higher
Cobalt phosphate powd., 32.1% Co., dms., dlvd lb 1.35 - —
Cobalt resinate fused 3% Co. dms lb. .38½ — —
Cobalt sulfate, cryst., 21% Co., dms, dlvd lb .64 - —
Monohydrated, 33% Co., dms, dlvd lb 1.09 - —
Cobalt tallate 6% Co. dms. dlvd lb .44 - —
Cocaine, USP cns., 100 oz. lots, f.o.b. works oz. 17.50 - —
Cocaine hydrochloride, cns 100-oz lots f.o.b. works oz. 13.75 - —
Cocillana bark, bls. lb. .20 - .22
Cocoa butter, bgs lb. .56 - .61
Coconut oil, crude, tanks, New York lb. .12¾ - —
tanks, Pac. coast lb. .11½ - —
refined, deod., dms lb. .18 - .19
Coconut acid, oil, dist., dms lb. .21½ - .24
tanks lb. .19 - —
double dist. (stripped), dms. lb. .22½ - .25
tanks lb. .20 - —
Cod oil, dms., spot lb. .06½ - .08⅜
Codeine, NF, cns. 100-oz lots oz. 13.25 - —
Codeine hydrochloride cns 100-oz. lots oz. 11.75 - —
Codeine phosphate USP cns., 100-oz lots oz. 10.25 - —
Codeine sulfate USP cns. 100 oz. lots oz. 10.75 - —
Codliver oil USP dms gal 1.40 1.70
Cohosh root, black, bls lb 20 25
Blue, bls lb 20 25
Colchicine, USP, bots. 27.50 - 29.00
Colchicum root, bls lb .35 .45
Colchicum seed, bgs. lb. .85 .90
Collodion, USP, dms. lb. .32½ - —
USP flexible, dms lb .34 — —
Colocynth pulp, bls lb .75 — —
Colombo root, bls lb 16 .18
Condurango bark, bls lb 18 .20
Congo copal gum, No. 1, bgs lb. .26 - .27
No. 2, bgs. lb. .20 - .23
No. 3, bgs. lb. .22 - .25
Copaiba balsam, cns., dms lb. .85 - .95
Copaiba oil, cns lb 1.35 2.00
Copper acetate, bbls., c.l., works lb. .53 — —
bbls., l.c.l., works lb. .54 — —
Copper carbonate, 55%, dark dense, c.l., works lb. .3545 - —
bgs., l.c.l., works lb. .3695 - —
Copper chloride, cupric, anhyd., dms., works lb. .44½ - .45
cryst., dihydrate, dms., works, lb. .30¾ - .31¼
cryst., dried, dms., works lb. .38¾ - .39¼
cuprous, dms., works lb. .3995 - .4295
Copper cyanide, tech., dms. 20,000-lb. lots or more lb. .609 — —
dms. 1,000-lb lots or more lb. .619 — —
dms smaller lots lb 639 .65
Copper gluconate, dms lb 3.20 — —
Copper hydrate, dry, dms, c.l., frt. E of Miss lb. .52½ - —
dms., l.c.l., same basis lb. .53 - —
Copper metal, electrolytic, dlvd Valley, basis lb. .31 - —
Copper naphthenate, liq., 8% Cu, dms frt alld lb. .26½ — —
Copper nitrate, tech., cryst., dms., works lb. .30¾ .32¾
Copper oleate, solid, 8% Cu, dms., works lb 45 — —
Copper oxide, black, bbls, 100-5,000-lb. lots, works lb. .47 - —
red., 97%, USP, type I, bbls., 100-5,000 lbs. lots lb. .47½ - —
90% USP, type II, bbls 100-5,000-lb lots or more, works lb. .45½ - —
Copper quinolinolate, 18% Cu, dms., ton lots lb 4.25 — —
10% active quinolinolate, dms lb 1.14 1.15
Copper resinate, precip, dms, frt alld lb 47 - —
Copper sulfate, CP, gran., cns., works lb .1885 - —
Cryst., 99%, bgs., c.l., works 100 lbs. 12.50 - —
bgs., l.c.l., works 100 lbs. 13.00 - 15.50
Monohydrated, 35% Cu, dms., c.l., works 100 lbs. 22.35 - —
dms., l.c.l., works 100 lbs. 24.10 - —
Tribasic, distributors, 50-lb c.l., works 100 lbs. 28.60 - —
bgs., l.c.l., works 100 lbs. 30.10 - —
Copper undecylenate, dms lb 2.45 — —
Copra, Atl., Gulf ports ton. 156.00 - —
Pac. coast, c.i.f ton. 151.00 - —
Coriander oil, USP, bots. lb. 5.75 - 6.25
Coriander seed, Moroccan, bgs. lb. .19 - —
Rumanian, bgs. lb. .14 - —
Yugoslavian, bgs lb .08½ — —
Corn oil, crude, tanks, works lb. .20¼ - —
Foots, (soapstock, 95% acid) tanks, New York lb. .06½ - —
Refd., salad, dms lb. .2598 - .2625
tanks lb. .2398 - —
Corn oil, acid, dms lb. .16 - .18½
tanks lb. .13½ - —
Corn sugar, tanners chipped, paper bgs. c.l. 60,000 lbs. min. 100 lbs 7.30 - —
paper bgs. l.c.l 100 lbs 7.45 - —
Corn syrup, 43° Be., tanks, dlvd. N Y 100 lbs 6.30 - —
non-ret. dms. c.l., same basis, 100 lbs 7.23 - —
Corrosive sublimate (see Mercuric chloride)
Cortisone acetate USP bots, kilo or more gram .85 - .90
Costus oil bots oz 6.00 — —
Cottonseed meal, 41% bgs., Memphis ton 55.00 - 56.00
Cottonseed oil, crude, tanks, South, E lb. .12¼ - .12½
tanks, Valley lb. .12 - —
tanks, Tex., West lb. .11⅞ - —
Foots (soapstock, acid 95%), New York, tanks lb. .04½ - —
Refd., salad, dms. lb. .18 - .18¼
tanks lb. .16 - —
Cottonseed oil acids, dist., dms lb. .16 - .18½
tanks lb. .13½ - —
Coumarin, NF, cryst., dms. lb. 3.20 - 3.30
Cramp bark, NF, bls. lb. .90 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots. cbys., lb. 3.05 3.26
Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .24 - —
Crude, soln 80%, tanks, works, gal. .226 - —
Refd., dms., c.l., works gal. .50 - —
dms., l.c.l., same basis gal. 62 - —
tanks, same basis gal .38 — —
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c per gallon for coaltar
Creosote, beechwood, cbys., dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 - 1.77
Hardwood, NF, cbys, dms, same basis lb. 1.42 1.47
Pinewood, dms, incl. c.l., works, lb. .0611 - —
dms, incl., l.c.l., works lb. .0684 - —
dms, incl., l.c.l. ex whse, New York lb. .0795 - —
tanks, works lb. .0511 - —
Creosote oil (see Creosote coaltar).
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½ - —
non-ret. dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. .145 - —
USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., same lb. .18 - —
non-ret. dms. l.c.l., same basis, lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98% dms. c.l., works, lb. .60 - —
dms., l.c.l., works lb. .61 - —
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb .16 - —
2,97% 2°C, dms., c.l., frt. equald, lb. .22 - —
dms., l.c.l., same basis lb. .23 - —
tanks, same basis lb. .20 - —
o-Cresol, 30.5°C. m.p. and over, ret., dms, c.l., frt equald lb. .17 - —
ret. dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
30° 30.49°C. m.p., dms., c.l., frt. equald lb. .16½ - —
ret. dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. .14½ - —
29° 29.9°C, m.p., dms., c.l., frt. equald lb. .16 - —
ret. dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
25° 28°C. m.p. dms. c.l., frt. equald lb. .15 - —
ret. dms., l.c.l. same basis lb. .16 - —
tanks, same basis lb. .13 - —
p-Cresol, 98%, dms., c.l., f.o.b., frt. alld. lb. .50 - —
dms., l.c.l., same basis lb. .52 - —
tanks, same basis lb. .45 - —
p-Cresyl methyl ether, cns lb. 1.80 2.05
Cresylic acid, coaltar, dom., metapara content above 25%, resins and trieresyl phosphate grades dms., c.l., t.l., frt equald gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal 1.15 - —
metapara content 25% or less, dms., c.l., t.l., same basis gal 1.20 - —
dms., l.c.l., same basis gal 1.25 - —
tanks, frt. equald gal. 1.00 - —
Imp., metapara content 25% or less, f.o.b. works, frt. equald to competitive points, c.l. gal. 1.15 - —
l.c.l., f.o.b., works gal. 1.20 - —
tanks, same basis gal. 1.00 - —
Crotonaldehyde, 91-93% dms., t.c.l., works lb. .25 - —
Crotonic acid, 200-lb. dms., c.l., dlvd lb. .49 - —
dms., l.c.l., dlvd lb. .51 - —
Cryolite, nat., indust., bgs., c.l., works 100 lbs. 13.00 - —
bgs. t.c.l. works 100 lbs. 14.25 - —
Cubeb oil, cns lb. 8.50 - 8.75
Cube root, powd., 5% rotenone, bgs., t.l., works lb. 21 - —
bgs., t.l., works lb 22 - —
Cubeb berries, NF, bgs. lb. 1.30 - —
Powd., cs. lb. 1.45 - —
Cumene, dms, c.l., works lb 12 - —
dms., t.c.l., works lb. .14 - —
tanks, works lb .11 - —
Cumin seed, Iranian, bgs. lb. .18 - —
Turkish, bgs lb .18 - —
Cumin seed oil, bots, cns lb. 15.50 - 17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract ton 57.00 - —
pulv., 21% N bgs., works, unit-ton. 2.85 - —
Cyanamide, indust. grade, bgs., c.l., works ton 75.00 - —
bgs., t.c.l., works ton 96.00 - —
Indust grade 6-16 mesh, dms., c.l., works ton. 120.00 - —
dms, t.c.l. works ton 140.00 - —
Cyclohexane, 99%, tech., dms, c.l., dlvd. E of Rockies gal 1.02 - —
dms, l.c.l. same basis gal 1.10 - —
dms, c.l. dlvd W of Rockies gal. 77 - —
dms., l.c.l., same basis gal. 85 - —
tanks, works gal. 55 - —
98% tech 40-dm lots or more, f.o.b works gal. 56 - —
5-39 dms, same basis gal. 60 - —
tanks, same basis gal. 36 - —
Cyclohexanol, tech., dms, c.l., works, frt. alld. E lb. .30½ - —
dms, t.c.l. works, same basis, lb. .31½ - —
tanks, works, same basis lb. .28 - —
Cyclohexanone, tech., dms., c.l., works lb. .33½ - —
dms., t.c.l., works lb. .34½ - —
tanks, works lb. 31 — —
Cyclohexylamine, tech., dms., c.l., works lb. .49 - —
dms, t.c.l., works lb .50 - —
tanks, works lb. .47 - —
Cypress oil, bots. lb 5.30 — —

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2,4-D, tech., bgs, dms, c.l., works, frt equald lb. .40 — —
bgs, dms, t.c.l. same basis lb .45 .49
2,4-D butyl ester, dms, c.l., works, lb. .43 — —
dms., l.c.l., same basis lb .48 .52
tanks, same basis lb .42 — —
2,4-D isopropyl ester, dms., c.l., works lb. .43 — —
dms, t.c.l., works lb. .48 .52
tanks, works lb .42 — —
Dammar gum, Batavia, A/E, cs lb. No stocks.
East India, Batu, bold, bgs lb. .15½ - .18
nubs and chips, bgs. lb. .10 - .11
black, bold, bgs lb. .16 - .18
nubs and chips, bgs. lb. .13 - .14½
unscraped, bgs lb. .13 - .14½
East India, pale, chips, bgs. lb. .16 - .18
pale, nubs, bgs. lb. .20¾ - .24
Siam, cs. lb. .31½ - .34
Singapore, No. 1, bgs. lb. .38 - .44
No. 2, bgs. lb. .29 - .32
dust, bgs. lb. .18 - .20
No. 3, bgs. lb. No stocks.
Dandelion root, bls lb. .35 - .40
DDD, tech., flake, grd., fib, dms., c.l., works lb. .45 - .47
fib. dms., l.c.l., works lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd lb. .21 - —
bgs, smaller lots, same basis, lb. .23 - —
fib, dms., c.l., same basis lb. .22 - —
fib dms., smaller lots, same basis lb. .25 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate)
1-Decanol, tech., dms., c.l., dlvd. E, lb. .41½ - —
dms., l.c.l., dlvd. E lb. .43½ - .44½
tanks, dlvd. E lb. .37½ - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .20½ - —
dms., l.c.l., dlvd lb. .22 - —
tanks, dlvd. lb. .18 - —
Perfume grade, bots. lb. 1.00 - 2.00
Decyl alcohol, normal (see 1-Decanol)
Deertongue leaves, bls. lb. .50 - .60
Defluorinated phosphate, feed grade, 14% P, paper bgs., c.l., t.l., Tupelo, Miss ton. 52.00 - —
18% P, paper bgs., c.l., Plant City, Fla. ton. 61.25 - —
18% P, paper bags, c.l., t.l., Port Arthur, Tex. ton. 65.75 - —
paper bags, c.l., works, Wales, Tenn. ton. 66.00 - —
19% P, paper bgs., c.l., t.l., works, Houston, Tex. ton. 69.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices
Degras, common (15-17% free fatty acid), 400-lb dms lb. .12 - .14
Neutral (over 2% free fatty acid), 400-lb. dms lb. 13 - —
Denatured alcohol, ethyl CD-18, CD-19, dms., c.l., dlvd. E. of Rockies gal. .69½ - —
dms., t.c.l., same basis gal. .74½ - .80½
tanks, dlvd. same basis gal. .53½ - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E of Rockies gal. .72 - —
dms., l.c.l., same basis gal. .77 - .83
tanks, same basis gal. .56 — —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd E of Rockies gal. .70½ - —
dms, t.c.l. same basis gal. .75½ - .81½
tanks, same basis gal. .54½ - —
SD2B, dms, c.l. dlvd E. of Rockies gal. .69 — —
dms., l.c.l., same basis gal. .74 - .80
tanks, same basis gal. .53 - —
SD3A, dms, c.l. dlvd E. of Rockies gal. .68 - —
dms, t.c.l. same basis gal. .73 - .79
tanks, same basis gal. .52 - —
SD23A, dms., c.l., dlvd. E. of Rockies gal. .70½ - —
dms., t.c.l., same basis gal. .75½ - .81½
tanks same basis gal. .54½ - —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., t.c.l. same basis gal. .76 - .82
tanks same basis gal. .55 - —
SD29, dms., c.l., dlvd. E. of Rockies gal. .69½ - —
dms., t.c.l., same basis gal. .74½ - .80½
tanks, same basis gal. .53½ - —
SD30, dms., c.l. dlvd. E. of Rockies gal. .68 - —
dms., t.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
SD35A, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., t.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
SD-40, dms., dlvd. E. of Rockies, gal. .70½ - —
dms., t.c.l., same basis gal. .75½ - .81½
tanks, same basis gal. .54½ - —
For anhyd. alcohol on above formulas prices are 7c. per gal. higher.
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms lb. 15.00 - 17.00
dl-Desoxyephedrine hydrochloride, dms lb. 6.60 - —
Dextrin, corn gum, paper bgs., c.l., 100 lbs. 9.39 - —
paper bgs., l.c.l. 100 lbs. 9.54 - —
canary, dark, paper bgs., c.l. 100 lbs. 9.23 - —
paper bgs., l.c.l. 100 lbs. 9.38 - —
Indust. grade 6-16 mesh, canary, light, paper bgs., c.l. 100 lbs. 9.13 - —
paper bgs., l.c.l. 100 lbs. 9.28 - —
white paper bgs., c.l. 100 lbs. 8.97 - —
paper bgs, l.c.l 100 lbs. 9.12 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs. higher
Dextrose, anhyd., coml., bgs., c.l. 100 lbs. 8.65 - —
bgs. l.c.l 100 lbs. 8.80 - —
Anhyd., special, aluminum foil lined fib. dms., 200-lb. dms 100 lbs. 14.70 - —
100-lb dms. 100 lbs. 15.20 - —
Hydrated, coml., bgs., c.l. ex whse 100 lbs. 7.45 - —
bgs., c.l., ex whse 100 lbs. 7.60 - —
USP, dms lb. .19¾ - —
Diacetone alcohol, acetone-free, dms., c.l., dlvd lb. .15½ - —
dms., t.c.l. dlvd. lb. .17 - —
tanks, dlvd lb. .13 - —
Tech., dms, c.l., dlvd. lb. .15 - —
dms, t.c.l., dlvd. lb. .16½ - —
tanks dlvd lb. .12½ - —
Diacetyl, flavor grade, bots lb. 3.30 4.30
Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms., t.c.l., works lb. .33 - —
tanks works lb. .29½ - —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms, t.c.l., works lb. .33 - —
tanks works lb. .29½ - —
Diallylamine, dms., c.l., dlvd. lb. .98½ - —
dms, t.c.l., dlvd. lb. 1.00 - —
tanks dlvd lb. .96 - —
o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works, lb. .93 - —
dms., l.c.l., same basis lb. .93½ - .94
tanks, same basis lb. .91 - —
Dibromobenzene, bgs., 500-lb. lots, lb. .88 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd. lb. .65 - —
t.t.l., dms., same basis lb. .68 - —
Food grade, c.l., t.l., dms., dlvd. lb. .65 - —
dms., t.t.l., same basis lb. .68 - 1.10
Tech., dms., c.l., t.l., dlvd. lb. .57 - —
dms., l.c.l., same basis lb. .60 - —
tanks, same basis lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., dlvd. E lb. .31½ - —
dms., l.c.l., t.t.l., dlvd. E lb. .33 - —
tanks, dlvd E lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., dlvd. E lb. .31½ - —
dms., l.c.l., t.t.l., dlvd. E lb. .33 - —
tanks, dlvd. E lb. .29 - —
Dibutyl phthalate, dms., c.l., dlvd. E lb. .30½ - —
dms., l.c.l., same basis lb. .32 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .28 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .28 - —
Dibutyl sebacate, dms., c.l., works, lb. .67½ - —
dms., l.c.l., works lb. .68½ - —
tanks, works lb. .65½ - —
Dibutyl tartrate, dms., works, frt. alld lb. .65½ - —
Dibutylamine, dms., c.l., dlvd lb. .55½ - —
dms., l.c.l., same basis lb. .57 - —
tanks, same basis lb. .53 - —
Dicapryl phthalate, dms., c.l., dlvd. lb. .26 - —
dms., l.c.l., dlvd. lb. .27½ - —
tanks, dlvd. lb. .23½ - —
Dicapryl sebacate, dms., c.l., works, lb. .63 - —
dms., t.c.l., works lb. .63½ - .64
tanks, works lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt. alld lb. .73 - —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾ - —
dms., t.c.l., same basis lb. .13¾ - —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., f.o.b., works, frt. alld. E lb. .12 - —
dms, 2,000 lbs or more, same basis lb. .14½ - —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½ - —
dms., t.c.l., or t.t.l., works lb. .34 - —
tanks, works lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½ - —
dms., t.c.l., t.t.l., same basis lb. .17 - —
tanks, same basis lb. .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - —
dms., t.c.l., same basis lb. .75 - —
Dichloropentanes dist., dms., c.l., works lb. .05 - —
dms., t.c.l., works lb. .06 - —
tanks works lb. .03 - —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine, dms, c.l., works, lb. .54 - —
dms., t.c.l., works lb. .55 - —
tanks, works lb. .52 - —
Dicyclohexyl phthalate, gran., fib. dms, c.l. works frt alld. lb. .49½ - —
fib. dms., t.c.l., same basis lb. .51½ - —
Dicyclopentadiene, dms, c.l., t.o.b. works lb. .14½ - —
dms., t.c.l., same basis lb. .14¾ - —
tanks, same basis lb. .12 - —
Didecyl phthalate, dms, c.l., works, lb. .26½ - —
dms., l.c.l., same basis lb. .28 - —
tankcars, tanktrucks, 2,000 gals. lb. .23 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .24½ - —
Dieldrin, dms., c.l. dlvd. lb. 1.85 - —
dms., l.c.l. dlvd. lb. 1.90 - —
Diethanolamine, dms., c.l., dlvd E, lb. .27 - —
dms., t.c.l., same basis lb. .28½ - —
tanks, same basis lb. .24½ - —
Diethanolamine (lauryl) sulfate, dms., c.l., frt. alld lb. .27½ - —
dms., t.t.l. frt. alld. lb. .28½ - —
tanks, frt. alld. lb. .26½ - —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate, dms, c.l., t.o.b. works lb. .47½ - —
dms., t.c.l., same basis lb. .48½ - —
tanks, same basis lb. .45 - —
Diethyl ethanolamines, dms., c.l., dlvd lb. .69½ - —
dms., t.c.l., dlvd. lb. .71 - —
tanks, dlvd lb. .67 - —
Diethyl oxalate, dms, c.l., t.o.b. works lb. .42½ - —
dms., t.c.l., same basis lb. .43½ - —
tanks, same basis lb. .40 - —
Diethyl phthalate, dms., c.l., dlvd. lb. .28¼ - —
dms., l.c.l. dlvd. lb. .29¾ - —
tanktrucks, 1,000-1,999 gals, same basis lb. .25¾ - —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .25¼ - —
Diethyl sulfate, dms, c.l., frt. alld. E, lb. .21 - —
dms., t.c.l., frt. alld. E lb. .22½ - —
tanks, frt. alld. E lb. .18½ - —
Diethyl thiourea, dms., c.l., t.l., works lb. .58 - —
dms., t.c.l. same basis lb. .59 - —
Diethyl toluamide, 90-95% meta isomer, dms, c.l., t.l., works, lb. 2.30 - —
5-44 dm. lots, works lb 2.35 - —
1-4 dm. lots, works lb 2.40 - —
N,N-Diethyl-m-toluidine, tech., liq., tanks, frt. alld lb. .83 - —
Diethylamine, dms., c.l., dlvd & lb. .52 - —
dms., t.c.l., same basis lb. .53½ - —
tanks, same basis lb. .49½ - —
N,N-Diethylaniline, dms., c.l., frt. alld lb. .57 - —
dms., t.c.l., same basis lb. .58 - —
tanks, same basis lb. .55 - —
Diethylbenzene, 380 lb. dms., c.l., t.l., frt. alld., Zone 1 lb. .17½ - —
f.o.b., Zone 2 lb. .18½ - —
380-lb. dms., t.c.l., c.l., f.o.b. Zone 1 lb. .19½ - —
f.o.b. warehouse points, Zone 2 lb. .20½ - —
tankcars, Zone 1 lb. .15 - —
Zone 2 lb .16 — —
Zone 1 is East of the Rockies. Zone 2, West of the Rockies
Di-2-ethylhexyl adipate (see Di-octyl adipate).
Di-2-ethylhexyl phthalate (see Di-octyl phthalate).
Diethylene glycol, dms, c.l., dlvd E, lb. .17¾ - —
dms, t.c.l., same basis lb. .19¼ - —
tanks, same basis lb. .15¼ - —
Diethylene glycol diethyl ether, dms., c.l., works lb. .55 - —
dms., l.c.l., works lb. .55¾ - —
Diethylene glycol monobutyl ether, c.l., dms., frt. alld. E lb. .30¾ - —
dms., t.c.l., frt. alld. E lb. .32¼ - —
tanks, frt. alld. E lb. .28¼ - —

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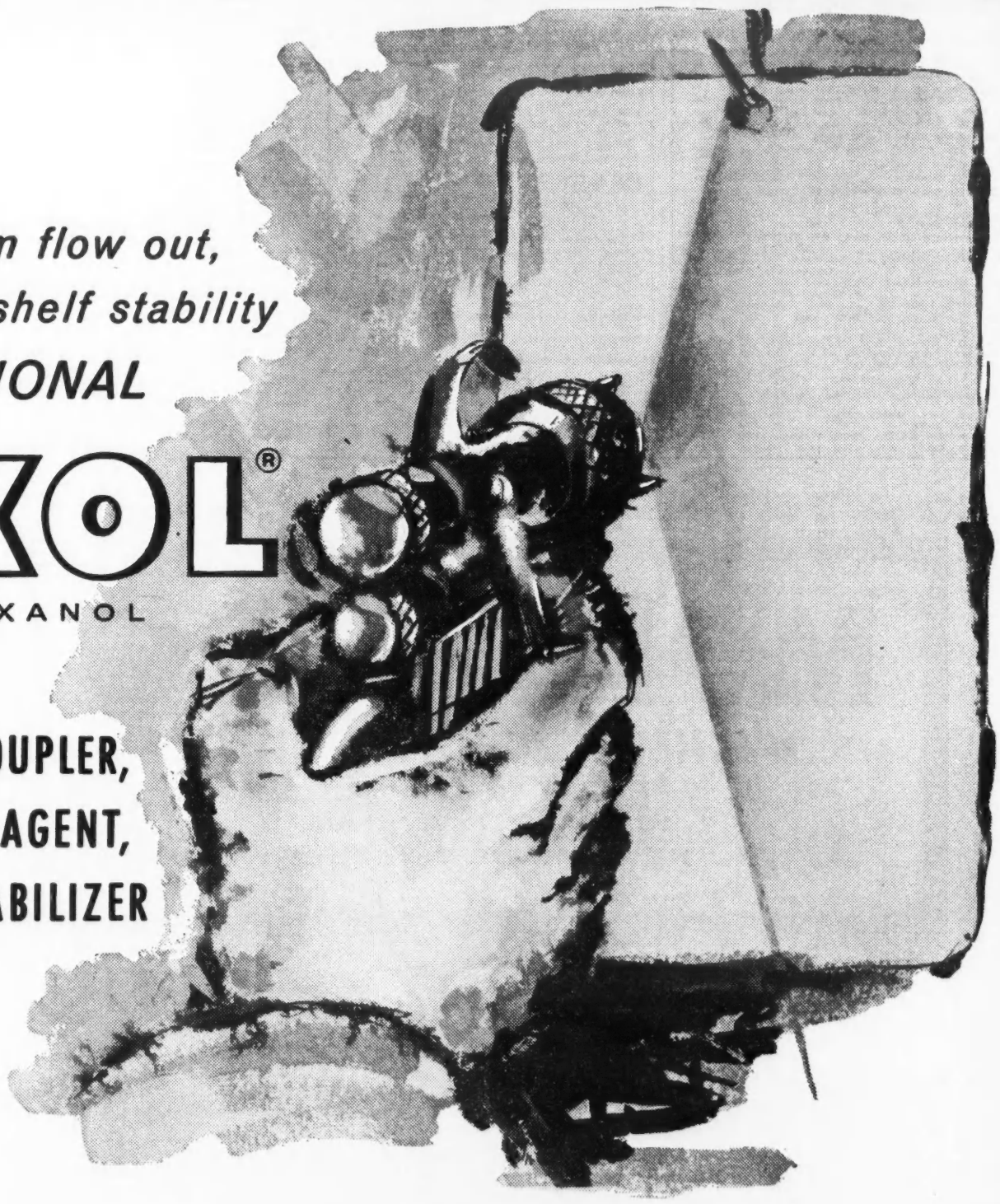

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Diethylene glycol monobutyl ether acetate, dms., c.l., works lb. .30¾- —
dms., l.c.l., works lb. .31½- —
tanks, works lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .22½- —
dms., l.c.l., dlvd. E lb. .24 - —
tanks, dlvd E. lb. .30 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works. lb. .27¼- —
dms., l.c.l., works lb. .28 - —
tanks, works lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E. lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd. E lb. .44 - —
dms., l.c.l., dlvd. E. lb. .45½- —
tanks, dlvd. E. lb. .41½- —
Diethvistilbesterol, USP, bots., 10-kilo lots kilo 100.00 -147.50
bots. 1-kilo lot kilo 110.00 -152.50
Digitalis leaves USP, dom. dms lb. 1.25 - —
Digitoxin, USP, bots gram. 3.75 - 4.20
Diglycol laurate dms., ton lots lb. .32½- —
Diglycol stearate, dms., t.l lb. .26 - —
Digtycolic acid bgs. c.l., t.l., works. lb. .15½- —
bgs., l.c.l., works lb. .16 - —
Dihexyl sebacate dms., c.l., works. lb. .66 - —
dms., l.c.l., works lb. .67 - —
tanks, works lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25

Dihydrostreptomycin sulfate, bulk, gram. .028 - .03
1,2-Dihydroxy anthraquinone, dms., works lb. 3.45 - —
2,3-Dihydroxy-5-8-dichloro-diphenyl-methane, pure, dms lb. 2.55 - —
Tech., dms., 20,000 lbs. or more lb. 1.11 - —
dms., 1,050 lbs. to 20,000 lbs. lb. 1.13 - —
dms., 150 lbs. to 1,050 lbs lb. 1.15 - —
Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd. E lb. .29 - —
dms., l.c.l., same basis lb. .30½- —
tanks, same basis lb. .26½- —
Di-isobutylene dms. c.l., dlvd. E lb. .10 - —
dms., l.c.l., dlvd. E lb. .11½- —
tanks. dlvd E. lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., works lb. .26 - —
dms., l.c.l., same basis lb. .27½- —
tanktrucks, 1,000-1,999 gals., works lb. .24 - —
tankcars, tanktrucks, 2,000 gals., works lb. .23½- —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 - —
dms., l.c.l., works lb. .61¼- —
tanks, works lb. .60 - —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —

Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb. .80½- —
dms., l.c.l., same basis lb. .52 - —
tanks, same basis lb. .48 - —
Dillweed oil, dom., bots., dms. lb. 4.50 - —
Dimethyl anthranilate, cns. lb. 4.15 - —
Dimethyl dichlorovinyl phosphate, 55-gal. dms., dlvd lb. 3.50 - —
Dimethyl ethanolamine, anhyd., dms., c.l., dlvd. E lb. .78 - —
dms., l.c.l., dlvd. E lb. .79½- —
tanks, dlvd. E lb. .75½- —
Dimethyl ethanolamine, 70%, dms., c.l., dlvd., 100% basis, contained amines lb. .78 - —
dms., l.c.l., dlvd., 100% basis. lb. .79½- —
tanks, dlvd., 100% basis lb. .75½- —
Dimethyl hydroquinone, dms. lb. 1.90 - 2.20
Dimethyl phthalate, dms., c.l., works lb. .28¼- —
dms., l.c.l., works lb. .29¾- —
tanktrucks, 1,000-1,999 gals., same basis lb. .26¼- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .25¾- —
Dimethyl sebacate, dms., c.l., works. lb. 1.30 - —
dms., l.c.l., works lb. 1.30½- 1.31
tanks, works lb. 1.28 - —
Dimethyl sulfate, ret. dms., c.l., works lb. .17½- —
ret. dms., l.c.l., works lb. .18½- —
tanks, works lb. .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .17½- —
dms., l.c.l. works lb. .18½- .19½
tanks, works lb. .15 - —
Dimethyl sulfoxide, dms., c.l., f.o.b. works lb. .35 - —
dms., l.c.l., same basis lb. .37 - .38
tanks, same basis lb. .33 - —

Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .26 - —
dms., l.c.l., frt. equald, 100% basis lb. .30¼- —
Dimethylamine, 25% soln., tanks, frt. equald, 100% basis lb. .28 - —
40% soln., dms., c.l., frt. equald., 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, frt. equald., 100% basis lb. .28 - —
N,N-Dimethylaniline, dms., c.l., frt. alld. lb. .28 - —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .26 - —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½- —
dms., l.c.l., works lb. .33 - .34
tanks, works lb. .30 - —
2,4-Dinitroaniline, dms., frt, alld lb. .75 - —
Dinitroaniline orange toner CP, bbls., dlvd. E. of Rockies. lb. 1.61 - —
Dinitroaniline orange toner prices 1c. higher W of Rockies.
m-Dinitrobenzene, 89°C., dms. lb. .26 - —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E lb. .17¼- —
dms., l.c.l., frt. alld. E. lb. .17¾- —
tanks, frt. alld. E. lb. .17 - —
2,4-Dinitrophenol bbls. lb. .41 - —
2,4-Dinitrotoluene, oil, dms. lb. .11 - —
Refd., 63°C., dms. lb. .23 - —
Dioctyl adipate, dms., c.l., works. lb. .37½- —
dms., l.c.l., works lb. .39 - —
tanks, works lb. .35 - —
Dioctyl phthalate, dms., c.l., frt. alld. E lb. .26 - —
dms., l.c.l., frt. alld. E lb. .27½- —
tanktrucks, 1,000-1,999 gals., same basis lb. .24 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .23½- —
Dioctyl phthalate prices ¾c. higher in West.
Dioctyl sebacate, dms., c.l., works. lb. .59 - —
dms., l.c.l., works lb. .59½- .60
tanks, works, dlvd lb. .57 - —
1,4-Dioxane, dms., c.l., frt. alld. E. lb. .31½- —
dms., l.c.l., frt. alld. E lb. .33 - —
tanks, frt. alld. E lb. .29 - —
Prices in the west are 2c. per lb. higher.
Dipentaerythritol, bgs. c.l., t.l., dlvd. E lb. .34 - —
bgs., l.c.l., l.t.l., dlvd. E lb. .35 - —
Dipentene, dest.-dist., dms., c.l., works gal. .58 - —
dms., l.c.l., works lb. .62 - —
dms., l.c.l., ex whse. gal. .78 - —
tankscars, works gal. .41 - —
Dipentane, steam dist., dms., c.l., works South gal. .72 - —
dms., l.c.l., dlvd. New York gal. .91 - —
tanks, works, South lb. .55 - —
Dip oil (see Tar acid oil).
Diphenolic acid, 1,000-lb. or more, bgs., works lb. .75 - —
Diphenolic polyether acids, 1,000-lb. or more, bgs., works lb. 1.00 - —
Diphenyl, bgs., c.l., t.l., works lb. .16¾- —
bgs., l.c.l., works lb. .18½- —
tanks, works lb. .15¾- —
Diphenyl oxide perfume grade, cns. lb. .5o - .70
Diphenyl phthalate, dms., c.l., works. lb. .51 - —
dms., l.c.l., works lb. .53 - —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald lb. .32 —
bgs., l.c.l., same basis lb. .34 —
Refd., fused, tanks, same basis lb. .29 - —
Refd., diphenylamine in dms., ½c. per lb higher.
Diphenylguanadine bgs., dms., ton lots, frt. alld lb. .51 - —
bgs., smaller lots, frt. alld lb. .52 - —
Diphenylhydantoin-sodium, USP, dms lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., frt. alld. lb. .18½- —
tanks, frt. alld. lb. .14¼ —
Dipropylene glycol prices 1c. higher in West.
Dipropylene glycol methyl ether, dms., c.l., dlvd. E lb. .20 - —
dms., l.c.l., same basis lb. .21½- —
tanks, same basis lb. .18½- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.80 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld lb. .71 - —
dms., smaller lots, frt. alld lb. .72 - —
Di-o-tolylthiourea, tech., solid, dms., c.l., t.l., frt. alld lb. .55 - —
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .19 - —
50-60%, dms., c.l., works, 100% basis lb. 1.00 - —
dms., l.c.l., works, 100% basis. lb. 1.05 - —
tanks, same basis lb. .90 - —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E lb. .50 - —
dms, l.c.l., l.t.l., same basis lb. .52 - —
Dodecylbenzene, dms., c.l., t.o.b., works, frt equald lb. .134 - —
dms., l.c.l., same basis lb. .144 - —
tanks, same basis lb. .11 - —
Dodecylphenol c.l., frt. alld lb. .22½- —
dms., l.c.l., same basis lb. .23½- —
tanks, same basis lb. .20 - —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher.

Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 25-lb.lots, frt. prepaid or alld.
Blue, FD&C, No. 1 lb.15.65 -16.45
No. 2 lb.15.65 -16.45
Green, FD&C, No. 1 lb.15.65 -16.45
No. 2 lb.19.60 -20.40
No. 3 lb.31.30 -32.10
Red, FD&C, No. 2 lb. 3.60 - 4.40
No. 3 lb.19.60 -20.40
No. 4 lb. 6.00 - 6.80
Yellow, FD&C, No. 5 lb. 3.75 - 4.55
No. 6 lb. 3.65 - 4.45

Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:
Black, D&C, No. 1 lb.12.40 -13.00
Brown, D&C, No. 1 lb.16.35 -16.95
Green, D&C, No. 5 lb.17.00 -17.60
No. 6 lb.17.40 -18.00
No. 7 lb.14.35 -14.95
Orange, D&C, No. 3 lb.10.50 -10.95
No. 4 lb.19.60 -20.05
No. 5 lb. 3.80 - 4.25
Red, D&C, No. 17 lb.12.55 -13.15
No. 18 lb.23.55 -24.15
No. 19 lb.15.00 -15.45
No. 21 lb. 3.90 - 4.35
No. 22 lb.10.50 -10.95
No. 28 lb.27.90 -28.50
No. 33 lb.17.00 -17.45
Violet, D&C, No. 2 lb.15.65 -16.10
Yellow, D&C, No. 7 lb.10.50 -10.95
No. 8 lb.10.50 -10.95
No. 10 lb.15.10 -15.70
No. 11 lb.14.80 -15.40

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Blue, Ext., D&C, No. 1	lb.	15.65	-16.10
Green, Ext., D&C, No. 1	lb.	15.65	-16.10
Red, Ext., D&C, No. 1	lb.	13.05	-13.50
Yellow, Ext, D&C, No. 1	lb.	10.50	-10.95

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color index scale or prototype), contract dlvd. No.

11110	Brilliant scarlet BN	lb.	1.79	—
13390	Fast blue SR	lb.	1.57	—
14025	Yellow 2G	lb.	1.32	—
14030	Orange R, extra, conc.	lb.	1.64	—
14645	Chrome black T	lb.	.77	—
14720	Rubine XX, conc	lb.	1.76	—
15510	Orange Y, extra conc.	lb.	.83	—
15575	Orange RR	lb.	1.10	—
15620	Fast Red A, conc.	lb.	1.77	—
15705	Chrome blue black R, conc.	lb.	1.12	—
16150	Scarlet 2RL	lb.	1.22	—
16255	Brilliant scarlet 3RN, conc.	lb.	1.34	—
16230	Fast light, orange 2G	lb.	1.39	—
17590	Brown PG	lb.	3.00	—
18050	Phloxine 2G	lb.	1.16	—
18055	Fuchsine 6B	lb.	1.55	—
18965	Fast yellow 2G	lb.	2.44	—
19140	Yellow XX	lb.	2.48	—
19555	Yellow NN, conc.	lb.	3.67	—
20170	Brown Y	lb.	1.33	—
20470	Blue black, extra, conc	lb.	1.44	—
21010	Brown, RX, conc	lb.	1.42	—
22240	Scarlet B	lb.	2.81	—
22310	Red FC	lb.	1.57	—
22311	Brown MCW	lb.	1.59	—
22510	Blue 2B, extra conc	lb.	1.51	—
23500	Red 4BX, conc	lb.	1.50	—
24410	Sky blue FF, extra, conc.	lb.	1.93	—
24895	Brilliant yellow, conc.	lb.	3.27	—
26360	Navy blue 3R, conc.	lb.	1.84	—
26695	Black F, conc.	lb.	2.30	—
26900	Milling Red 3R, conc	lb.	2.24	—
27075	Neutral black 2B, conc.	lb.	2.75	—
27720	Gray L	lb.	2.18	—
29185	Fast scarlet 4BNC	lb.	2.23	—
30015	Diazo black VJ conc.	lb.	2.48	—
30045	Yellow brown K, extra	lb.	1.43	—
30235	Black EB, 200%	lb.	1.33	—
30295	Green BY conc.	lb.	1.07	—
35850	Brown B	lb.	2.89	—
37565	Naphthol SWF	lb.	1.85	—
40000	Yellow 2G	lb.	1.44	—
41000	Yellow OX	lb.	2.45	—
42000	Green V crystals	lb.	2.73	—
42040	Brilliant green G crystals	lb.	3.62	—
42640	Violet 4BXN	lb.	2.43	—
42090	Blue EG	lb.	1.85	—
42100	Milling green 6B conc.	lb.	4.79	—
42830	Brilliant blue, BBG	lb.	2.44	—
44045	Blue B, extra conc.	lb.	3.61	—
45170	Red BX	lb.	4.76	—
50415	Nigrosine SSJ	lb.	1.03	—
52015	Blue GXX	lb.	2.54	—
58005	Alizarin red SC	lb.	3.64	—
59700	Golden orange GFD, single paste	lb.	2.70	—
59710	Flaming orange 6RD double powder	lb.	4.90	—
59800	Dark blue BO, single paste	lb.	2.28	—
59825	Jade green NC supra, double paste	lb.	1.75	—
61570	Alizarin green CG, extra	lb.	4.00	—
63010	Alizarin blue SAPG	lb.	3.90	—
63615	Alizarin blue black B	lb.	3.26	—
69825	Blue BLFD double paste	lb.	2.76	—
70800	Brown BR single paste	lb.	2.03	—

Dyes, coaltar, oil-soluble, 100 lb. drums, dlvd. No.

12140	Oil scarlet BL	lb.	1.87	—
12055	Oil orange 7078 V	lb.	1.38	—
26120	Oil red N 1700	lb.	1.94	—
42535B	Methyl violet base	lb.	1.71	—
44045B	Victoria blue base	lb.	4.06	—
50415B	Oil black 8603	lb.	.80	—
61565	Alizarin cyanine green base,	lb.	6.13	—

Dyes, coaltar, spirit soluble, 100 lb. drums, dlvd., Black RB

		lb.	3.89	—
	Spirit brown GN	lb.	5.30	—
	Spirit orange R conc.	lb.	5.87	—
	Spirit red B conc.	lb.	6.41	—
Pr. 517	Spirit yellow 2R conc	lb	4.62	—
Pr. 554	Spirit blue THN	lb	5.06	—

E

Echinacea root, bls.	lb.	1.25	—
Elm bark, grinding, bls.	lb.	.30	.32
Powd., bbls., bxs.	lb.	.60	—
Select, bundles	lb.	.75	—
Emetine hydrochloride, USP, bots	oz.	48.40	—
Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd.	lb.	2.77	—
Eosin red toner, bbls., works	lb.	1.95	—
Ephedrine, syn., USP, anhyd., bots. 100-oz.lots	oz.	.88	1.00
hydrous, bots., 100-oz. lots.	oz.	.92	—
Ephedrine hydrochloride, NF, dms., 100-oz., f.o.b. works	oz.	.75	—
Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b. works	oz.	.73	—
USP, powd., dms., 100-oz., same basis	oz.	.73	—
Epichlorohydrin, dms., c.l., dlvd.	lb.	.29½	—
dms., l.c.l., dlvd.	lb.	.31	—
tanks, dlvd.	lb.	.27	—
Epinephrine base, syn., USP, bots., 100 gram, lots	gram.	.58	—
Epsom salt (see Magnesium sulfate).			
Erigeron oil, cns.	lb.	11.00	—
Ergot, NF, dms., tin-lined	lb.	2.00	2.50
Eserine salicylate, bots.	oz.	34.50	40.00
Eserine sulfate, bots.	oz.	26.00	—
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va	lb.	.18½	—
Ester gum, wood-rosin type, dms., c.l. same basis	lb.	.18½	—
Ether (see specific product)			
Ethyl acetate, nat., ferment, 85-88%, dms., c.l., dlvd	lb.	.15	—
dms., t.c.l., dlvd.	lb.	.16½	—
tanks, dlvd	lb.	.12½	—
95-98% dms. c.l., dlvd.	lb.	.15¼	—
dms., t.c.l., dlvd.	lb.	.16¾	—
tanks dlvd	lb.	.12¾	—
99%, dms., c.l., dlvd	lb.	.15½	—
dms., t.c.l., dlvd.	lb.	.17	—
tanks, dlvd	lb.	.13	—
Syn., 85-88%, dms., c.l., dlvd	lb.	.15	—
dms., t.c.l., dlvd.	lb.	.16½	—
tanks, dlvd.	lb.	.12½	—
95-98%, dms., c.l., dlvd.	lb.	.15¼	—
dms., t.c.l., dlvd	lb.	.16¾	—
tanks dlvd	lb.	.12¾	—
99%, dms., c.l., dlvd.	lb.	.15½	—
dms., t.c.l., dlvd.	lb.	.17	—
tanks dlvd.	lb.	.13	—
Ethyl acetoacetate, dms., c.l., dlvd.	lb.	58½	—
dms., t.c.l., dlvd.	lb.	.60	—
tanks, dlvd	lb.	.56	—
Ethyl acrylate, dms., c.l., t.l., dlvd.	lb.	.34¾	—
dms., t.t.l., dlvd	lb.	.35¾	—
tanks, dlvd.	lb.	.32½	—
Ethyl alcohol, 190 pf., USP, tax paid dms. c.l., dlvd. E. of Rockies	gal.	20.63	—
dms. t.c.l. same basis	gal.	20.73	20.84
USP, tax-free, dms., c.l., dlvd. E. of Rockies	gal.	.68	—
Ethyl alcohol, 190 pf., USP, tax free, dms., t.c.l., same basis	gal.	.78	.80
tanks, same basis	gal.	.52	—
Ethyl alcohol, absolute, 200 pf., tax paid, dms. dlvd. E. of Rockies	gal.	21.75	—
dms., t.c.l., same basis	gal.	21.85	21.96
tanks, same basis	gal.	21.59	—
Ethyl alcohol, denatured (see Denatured alcohol, ethyl).			
Ethyl aminobenzoate, USP (see Benzocaine).			
Ethyl amyl ketone, dms., c.l., dlvd.	lb.	.20	—
dms., t.c.l. same basis	lb.	.21½	—
tanks, same basis	lb.	.17½	—
Ethyl benzoate, bots.	lb.	.75	1.00
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E.	lb.	.43	—
dms., t.c.l., frt. alld. E.	lb.	.45	—
tanks, frt. alld. E.	lb.	.40	—
2-Ethyl butyl alcohol, dms., c.l., works	lb.	.30	—
dms., t.c.l., works	lb.	.30¾	—
tanks, works	lb.	.28	—
Ethyl butyl ketone, dms., c.l., t.l., works	lb.	.36	—
dms. t.c.l., t.l. works	lb.	.36¾	—
tanks, works	lb.	.34	—
Ethyl butyrate, dms., works	lb.	.85	1.00
Ethyl carbamate (see Urethane)			
Ethyl cellulose, vis. 4 cps., ogs., 5,000 lb lots or more, frt. alld. E	lb.	.73	—
bgs. smaller lots frt alld E	lb.	.75	—
vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E	lb.	.68	—
Ethyl cellulose, vis., 10,20,50,100,150 cps., bgs., smaller lots, frt. alld. E	lb.	.70	—
Ethyl chloride tech., cyls., works,	lb.	.20	.22
dms., works	lb.	.18	.20
tanks, works	lb.	.10	—
Ethyl cinnamate, cns.	lb.	3.38	3.50
Ethyl ethanolamines, mixed, dms., c.l., dlvd. E.	lb.	.43¼	—
dms., t.c.l., dlvd. E.	lb.	.44½	—
tanks, dlvd. E.	lb.	.41½	—
Ethyl ether, absolute, ACS, dms.	lb.	.47	—
Anesthesia, USP, dealers, 1-lb. cns.	lb.	1.01	—
½-lb. cns	lb.	1.09	—
¼-lb. cns.	lb.	1.21	—
Indust., dms., c.l., dlvd.	lb.	.13¼	—
dms., t.c.l., dlvd. E.	lb.	.15	—
tanks, dlvd E.	lb.	.11	—
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E	lb.	.37	—
dms., t.c.l., t.t.l., dlvd. E.	lb.	.38½	—
tanks, dlvd. E.	lb.	.34½	—
2-Ethyl hexoic acid 1c. higher W. of Rockies.			
2-Ethylhexyl acrylate, dms., c.l., t.l., straight or mixed frt. alld. E	lb.	.39½	—
dms., t.t.l., same basis	lb.	.40½	—
tanks, same basis	lb.	.37	—
2-Ethylhexyl alcohol, dms., c.l., dlvd, E.	lb.	.20½	—
dms., t.c.l., dlvd. E	lb.	.22	—
tanks, dlvd. E	lb.	.18	—
Ethyl iodide, cbys., works	lb.	3.30	—
Ethyl methacrylate, dms., c.l., frt. equald	lb.	.52	—
dms., t.t.l., frt. equald	lb.	.52½	—
tanks, frt. equald	lb.	.50	—
Ethyl morphine hydrochloride, USP, buts	oz.	11.85	—
Ethyl oenanthate, dms.	lb.	1.05	1.30
Ethyl oxalate (see Diethyl oxalate).			
Ethyl silicate, dist. (see Tetraethyl orthosilicate).			
Ethyl silicate 40% available SiO_2, dms., c.l., dlvd. E.	lb.	.49	—
dms., t.c.l., dlvd. E.	lb.	.50½	—
tanks, dlvd. E.	lb.	.47	—
N-Ethyl-a-naphthylamine, dms., works.	lb.	1.04	—
N-Ethyl-m-toluidine, tech., tkq., tanks frt. alld	lb.	.83	—
N-Ethyl-o-toluidine, bbls	lb.	.88	—
Ethylamine (see Mono-, Di-, or Tri-)			
N-Ethylaniline, dms., c.l., frt. alld.	lb.	.57	—
dms., t.c.l., frt. alld.	lb.	.58	—
tanks, frt. alld.	lb.	.55	—
Ethylbenzene, 99% dms., c.l., t.l., frt. equald	lb.	.14	—
dms., t.c.l., same basis	lb.	.16	—
tanks, same basis	lb.	.11½	—
Ethylene, contract refy gals	lb.	.0475	.0525
Ethylene dibromide dms., c.l., frt. equald	lb.	.30½	—
dms., t.c.l., frt. equald	lb.	.31½	—
tanks, frt. equald	lb.	.28½	—
Ethylene dichloride dms., c.l., dlvd.	lb	.11½	—
dms., t.c.l., same basis	lb.	.13	—
tanks, same basis	lb.	.09	—
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher			
Ethylene glycol, indust., dms., c.l., dlvd. E	lb.	.16	—
dms., t.c.l., same basis	lb.	.17½	—
tanks, same basis	lb.	.13½	—

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200 PROOF

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SPECIFICATIONS

Purity (vol per cent) min	99.9
Water Content (wt per cent) max	0.1
Specific Gravity (20/20°C) max	0.7911
Specific Gravity (60/60°F) max	0.7942
Acidity, as acetic acid (wt per cent) max	0.002
Color (Pt-Co) max	10
Non-volatile Matter (mg/100 ml) max	2.0
Distillation (°C)	
Initial min	77.5
Dry Point max	79.0
Permanganate Time (minutes) min	25
Residual Odor	Nil
Water Solubility	Clear at Infinite Dilution
Appearance	Clear and Free of Suspended Matter

For more complete information on any Enjay chemical, contact: Enjay, 15 West 51st Street, New York 19, N.Y.

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ENJAY CHEMICAL COMPANY

A DIVISION OF HUMBLE OIL & REFINING COMPANY

ENJAY

Ethylene glycol monobutyl ether, dms. c.l., dlvd E lb. .22 —
dms., l.c.l., dlvd E lb. .23½- —
tanks, dlvd E lb. .19½- —

Ethylene glycol monoethyl ether, dms. c.l., dlvd E lb. .21 —
dms., l.c.l., dlvd E lb. .22½- —
tanks, dlvd E lb. .18½- —

Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E lb. .19½- —
dms., l.c.l., dlvd. E lb. .21 - —
tanks, dlvd E lb. .17 - —

Ethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd E lb. .18½- —

Ethylene glycol monomethyl ether acetate, dms., c.l., works lb. .29 - —
dms., l.c.l., works lb. .29¾- —
tanks, works lb. .27 - —

Ethylene glycol monostearate, flake, 150-lb. ctn lb. .33 - —

Ethylene oxide, dms., c.l., dlvd E. lb. .21½- —
dms., l.c.l., dlvd. E lb. .24½- —
tanks, dlvd E lb. .15½- —

Ethylene trichloride (see Trichloroethylene)

Ethylenediamine, 85-88%, dms., c.l., dlvd. E., 100% basis lb. .40 - —
dms. l.c.l., dlvd. E., 100% basis. lb. .41½- —
tanks, dlvd. E., 100% basis lb. .38 - —

Ethylvanillin, 100-lb. fib. dms., 500-lb. 6.75 - —
less than 500-lb. lb. 7.40 - —

Eucalyptol, USP, cns., dms lb. .85 - 1.40

Eucalyptus oil, NF rectified, 70-75% dms. lb. .45 - —
NF rectified, 80-85%, dms. lb. .53 - .62
USP, dms. lb. 1.90 - —

Euphorbia herb, bls. lb. .12 - .15

F

F salt paste, tech., dms., works lb. 2.50 - —

Fennel oil, sweet, USP, cns. lb. 2.60 - —

Fennel seed, Argentine, bgs. lb. .17½- —
French, light, bgs. lb. .16½- —
Indian, light, bgs. lb. .16½- —
Yugoslav, light, bgs. lb. .17½- —

Fenugreek seed, Moroccan, bgs. lb. .12 - —

Ferric chloride, anhyd., tech., 350-lb. dms., c.l., works 100 lbs. 8.00 - —
dms., l.c.l., works 100 lbs. 9.00 - —

Indust., cryst., bbls., c.l., works. 100 lbs. 5.25 - 6.75
bbls., l.c.l., works 100 lbs. 5.75 - 7.25

Ferric chloride 42° Be., photo grade, cbys., c.l. works 100 lbs. 7.25 - 8.25
sewage grade, tanks, frt. equald. 100% basis 100 lbs. 4.00 - —

USP, cryst., dms., t.l., works lb. .08½- —

Ferric citrate, gran., dms. lb. .86 - —

Ferric hypophosphite, NF, 175-lb. dm lb. 4.25 - —

Ferric naphthenate, liq., 6% Fe, dms., frt. alld lb. .28¼- —

Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E lb. 1.30 - —

Ferric oxides (see iron oxides).

Ferric phosphate, NF, soluble, gran. pearls, cs lb. .73 - .75

Ferric pyrophosphate, NF VII, soluble, gran. pearls, 225-lb. dm lb. .79 - —

Ferric resinate, dms., ton lots, frt. alld lb. .45 - —

Ferric stearate dms., c.l., frt. alld. lb. .39 - —
dms., l.c.l., frt. alld lb. .40 - .44

Ferric sulfate, partly hydrated, bgs., c.l., works ton.35.25 —
bgs., l.c.l., works ton.36.25 -42.25
bulk, c.l., works ton.33.25 - —

Ferric-amonium citrate, NF, brown, gran., 100-lb. dms. lb. .68 - —
NF, green, gran., 100-lb. dms., frt. equald lb. .68 - —

Ferric-ammonium oxalate, fine gran., dms. lb. .27½- .29½

Ferric-potassium oxalate, fine gran., 250-lb dm., f.o.b. works lb. .32½- —

Ferric-sodium oxalate, fine gran., dms. lb. .27½- .29½

Ferrous gluconate, USP, 200-lb. dm., frt. equald lb. .96 - —

Ferrous sulfate, gran., bgs., c.l., works ton.34.50 - —
bgs., l.c.l., dlvd. Metropolitan area 100 lbs. 3.35 - 4.25
bbls., c.l., works ton.40.00 - —
bulk, c.l., works ton.27.00 - —

USP, cryst., bbls., dms. lb. .09½- .10

Fir balsam, Canada, bbls. gal.34.00 -35.00
Oregon, bbls gal. 3.40 - 4.64

Fir oil, Canada, cns lb. 1.70 - 1.75

Fish oil, refd., alkali, dms. lb. .1380- .1430
Kettle-bodied, dms. lb. .1530- .1580
Light-pressed, dms. lb. .1280- .1330
tanks lb. .1060- —

Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms. 1,000,000 units. .12 - —

Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts ton.118.00 -120.00

Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic and Gulf coasts. ton.114.00 -116.00

Fleaseed (see Psyllium seed).

Folic acid, USP, bots., fib. dms., kilo lots or more gram. .25 - —
10% feed grade, fib. dms., 3 kilos or more kilo.30.00 -44.00

Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd. lb. .0690- —
tanks, dlvd. lb. .0430- —
37% (inhibited, 7% methanol) tanks, dlvd. lb. .0405- —
44% (1% methanol), tanks lb. .0446- —
methanol-free (uninhibited), tanks, dlvd. lb. .0375- —

Formic acid, 85%, cbys., c.l., works. lb. .1570- —
cbys., l.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1625- —
cbys., l.c.l., works lb. .1675- .1778

Fringetree bark, bls lb. .65 - .70

Fumaric acid, tech., 250-lb. dms., c.l., frt. equald lb. .23¼- —
dms., l.c.l., frt. equald lb. .24¾- —
Fumaric acid in bags ½c. per lb. less.

Furfural, dms., c.l., works lb. .13 - —
dms., l.c.l., works lb. .14 - —
tanks, dvd. E lb. .11½- —
tanks, dlvd. W lb. .12½- —

Furfuryl alcohol, cns., works lb. .28 - —
dms., c.l., t.l., Newark, N. J. lb. .19½- —
dms., l.c.l., l.t.l., Newark, N. J. lb. .20½- —
dms., c.l., t.l., Memphis, Tenn. lb. .18 - —
dms., l.c.l., l.t.l., Memphis, Tenn. lb. .19 - —
tanks, dlvd. E. of Denver lb. .175 - —

Fusel oil, refd., dms., c.l., dlvd. lb. .18 - —
dms., l.c.l., dlvd. lb. .19½- —
tanks, dlvd. lb. .15½- —

G

G salt, bbls., frt. alld., 100% basis lb. .73 - —

Gallic acid, NF VII, bbls., 1,000-lb. lots lb. 2.00 - —
bbls., smaller lots lb. 2.02 - 2.22
Tech., bbls., 1,000-lb. lots lb. 1.78 - —
bbls., smaller lots lb. 1.80 - 2.00

Gamma acid, dry grd., bbls., frt. alld lb. 1.75 - —

Gammapicoline (see g-picoline).

Garlic oil, dom., bots. oz. 4.75 - 6.05
Imp., bots. oz. 4.50 - 5.00

Gaultheria oil (see Wintergreen oil).

Gelatin, edible, 75 AOAC test, bbls., c.l., dlvd lb. .55 - —
150 AOAC test, bbls., c.l., dlvd. lb. .64 - —
200 AOAC test, bbls., c.l., dlvd. lb. .70 - —
225 AOAC test, bbls., c.l., dlvd. lb. .74 - —
275 AOAC test, bbls., c.l., dlvd. lb. .82 - —

Gelsemium root, bls. lb. .30 - .33

Gentian root, bls. lb. .24 - —
Grd., bbls., bxs. lb. .30 - —
Powd., bbls. bxs. lb. .30 - —

Geraniol, extra cns., dms. lb. 1.75 - 2.40
Soap grade, dms. lb. .90 - 1.75
Standard, cns., dms. lb. 1.65 - —
Synthetic dms lb 1.30 - —

Geranium oil, Algerian, cns. lb.21.00 -24.00
Bourbon, cns. lb.14.00 -18.00
Turkish (see Palmarosa oil).

Geranyl acetate cns. lb 1.90 - 2.70
Synthetic dms lb 1.45 - —

Ginger oil, dist., bots. lb.12.00 -14.00

Ginger oleoresin, NF from African root, bots lb. 4.25 - 5.00
NF, from Jamaican root, bots. lb. 7.75 - —

Ginger root, Cochin, bgs. lb. .20 - —
Jamaican, No. 3, bgs. lb. .26 - —
Nigerian, split, bgs. lb. .23 - —
Sierra Leone, bgs. lb. .32 - —

Glauber's salt (see Sodium sulfate).

Gluconic acid, tech., 50%, dms., c.l., t.l., f.o.b. works lb. .20 - —
dms., l.c.l., f.o.b. works lb. .21 - —
tanks, f.o.b. works lb .17 - —

Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd. lb. .16 - —
131 jellygrams, bgs., c.l., same basis lb. .16½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
191 jellygrams, bgs., c.l., same basis lb. .19½- —
222 jellygrams, bgs., c.l., same basis lb. .21 - —

Glue, green, 40 jellygrams, bgs., c.l., same basis lb. .16 - —
86 jellygrams, bgs., c.l., same basis lb. .16 - —
115 jellygrams, bgs., c.l., same basis lb. .16½- —

Glue, green, bone, 135 jellygrams, bgs., c.l., same basis lb. .17½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
180 jellygrams, bgs., c.l., same basis lb. .19½- —
200 jellygrams, bgs., c.l., same basis lb. .20½- —

Bone glue, l.c.l., prices 2c. higher.

Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .18 - —
95-149, bgs., c.l., dlvd lb. .19 - —
122-149, bgs., c.l., same basis lb. .20½- —
150-177, bgs., c.l., same basis lb. .22½- —
178-206, bgs., c.l. same basis lb. .25 - —
207-236, bgs., c.l. same basis lb. .28 - —
237-266, bgs., c.l., same basis lb. .30½- —
267-293, bgs., c.l., same basis lb. .32½- —
299-330, bgs., c.l., same basis lb. .34½- —
331-362, bgs., c.l., same basis lb. .36½- —
363-394, bgs., c.l., same basis lb. .38 - —
395-427, bgs., c.l., same basis lb. .40 - —
428-460, bgs., c.l., same basis lb. .42 - —
461-494, bgs., c.l., same basis lb. .44 - —
495-529, bgs., c.l., same basis lb. .46 - —

Hide glue, l.c.l., prices 2c. higher.

l-Glutamic acid, 99½%, fib. dms., 100-lb. lots, frt. alld lb. 1.80 - —
fib. dms., 25-lb. lots, frt. alld. lb. 1.88 - —

l-Glutamine, bots., 1-9 kilo lots, kilo.150.00 -300.00
Bots., 50-kilo lots kilo.100.00 - —
Bots., 500-kilo lots kilo. 75.00 - —

Glycerine, dom., nat., crude, saponification 88%, tanks, dlvd. lb. .13½- .14
nat., crude, soapiye, 80%, tanks, dlvd lb. .12½- .12¾
nat., refd., USP, CP, 99%, dms., c.l., dlvd lb. .26⅜- —
dms., l.c.l., dlvd lb. .27⅛- —
tanks, dlvd. lb. .24⅝- —
Dom., nat., refd., USP, CP, 96%, dms., c.l., dlvd lb. .25½- —
dms., l.c.l., dlvd. lb. .26¼- —
tanks, dlvd. lb. .23¾- —
nat., high gravity, dms., c.l., dlvd lb. .26¼- —
dms., l.c.l., dlvd lb. .27 - —
tanks, dlvd. lb. .24½- —

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Glycerine, dom., refd., syn., 99.5%, dms., c.l., dlvd.	lb.	.26½	—
dms., l.c.l., dlvd.	lb.	.27¼	—
tanks, dlvd.	lb.	.24¾	—
Imp., nat., crude, soaplye, 80%, c.l.f.	lb.	.12½	—
Glycine (see Aminoacetic acid).			
Glycerol (see Glycerine).			
Glyceryl guaiacolate, 100-lb. fib. dm., dlvd.	lb.	4.00	—
25-lb. fib. dm., dlvd.	lb.	4.25	—
Glycolic acid (see Hydroxyacetic acid).			
No. 2, 90-95%, bgs., fib. dms., ex whse	lb.	.29 -	.31
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works	lb.	.40	—
dms., l.c.l., same basis	lb.	.42	—
tanks, same basis	lb.	.39	—
Glyoxal, 30%, dms., c.l., works	lb.	.20½	—
dms., l.c.l., works	lb.	.21¼	—
tanks, works	lb.	.18	—
Golden seal root, NF, tested, bls.	lb.	2.90 -	3.00
Gramicidin, 1 to 5 kilos, f.o.b. works	gram.	4.25	—
Grapefruit oil, dms	lb.	2.40 -	2.60
Graphite, amorp., powd., bgs., fib. dms., ex whse	lb.	.06 -	.09½
Cryst., 88-90% powd., bgs., fib. dms., ex whse	lb.	.19 -	.21½
90-92% powd., bgs., fib. dms., ex whse	lb.	.21 -	.24½
Cryst., 95-97%, powd., bgs., fib. dms., ex whse	lb.	.29 -	.31½
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse	lb.	.29 -	.31
Grease, white, choice all hog, tanks, dlvd	lb.	.07½	Nom.
Yellow, tanks, dlvd	lb.	.05 -	.05½
Grease oil, No. 1, dms., c.l., f.o.b. Chicago	lb.	.12	—
dms., l.c.l., same basis	lb.	.14	—
tankcars, same basis	lb.	.10½	—
Grease oil, extra winter, strained, dms., c.l., Chicago	lb.	.15	—
dms., l.c.l., same basis	lb.	.17	—
tankcars, same basis	lb.	.13½	—
Prime, burning, dms., c.l., same basis, Chicago	lb.	.17	—
dms., l.c.l., same basis	lb.	.19	—
tankcars, same basis	lb.	.15½	—

Other areas ¾c. higher, except Texas and West Coast, 1¼c. higher.

GREEN PIGMENTS

Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green

Grindelia robusta herb, bls.	lb.	.40	—
Guaiacol NF cryst. dms. tins	lb	2.10	2.15
liq., cbys., dms	lb.	2.30 -	2.40
Guaiacwood oil cns.	lb.	.63	.80
Guaiacol carbonate NF VII, dms	lb	3.40	3.45
Guar gum, edible, bgs., c.l., f.o.b. shipt. pt	lb.	.33	—
bgs., l.c.l. same basis	lb.	.40	.42
Indust., bgs., c.l., same basis	lb.	.32	—
Tech., bgs., c.l., same basis	lb.	.30	—

GUMS

Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum

H

H acid, dry, bbls, c.l., frt. alld., 100% basis	lb.	1.00	—
bbls., l.c.l. same basis	lb.	1.05	—
Hansa yellow 10 G, bbls., dlvd. E. of Rockies	lb	2.45	—
Hansa G yellow, pigment, bbls	lb.	2.20	—
Hawthorn berries, bgs.	lb.	.18	.20
Heliotropin 100-lb lots, dms.	lb.	2.60	3.40
Hellebore root dom., green, bls	lb.	.70	.75
Helonias root bls.	lb.	1.50	—
Hemlock oil, cns.	lb.	2.55	3.00
Henbane leaves, bls	lb.	.40	.45
Heptachlor dms. c.l., t.l., frt. alld., 100% basis	lb.	.96	—
Heptane, indust., tankcars, New Jersey and New York	gal.	.20	—
Houston, Texas	gal.	.1625	—
Hesperidin, purif., 50 kilos, f.o.b. works	kilo.	19.70	—
Hesperidin methylchalcone, 50 kilos, f.o.b. works	kilo.	49.25	—
Hexachlorophene, dms., 1,100 lbs. or more	lb.	1.84	—
dms. to 1,100 lbs.	lb.	1.94	—
Hexalin (see Cyclohexanol).			
Hexamethylenetetramine, tech., bgs., 20,000-lb lots or more, Perth Amboy or New York City	lb.	.233	—
bgs., 1,000-19,999-lb. lots, same basis	lb.	.243	—
bgs., smaller lots, same basis	lb.	.253	—
fib. dms., 1,000-lb. lots or more, same basis	lb.	.250	—
fib dms. smaller lots, same basis	lb.	.253	—
Hexamethylenetetramine, USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia	lb.	.42½	—
bgs., smaller lots, same basis	lb.	.43½	.48½
Hexane, industrial, tankcars, New Jersey and New York	gal.	.20	—
Houston, Texas	gal.	.16	—
l-Hexanol, dms., c.l., works	lb.	.35	—
dms., l.c.l., works	lb.	.35¾	—
tanks, works	lb	.31	—
Hexyl cinnamic aldehyde, dms	lb.	3.95	4.00
n-Hexyl methacrylate, dms., c.l., works	lb.	.75½	—
dms., l.c.l. works	lb.	.76	—
Hexyl salicylate, dms.	lb.	1.70	1.75
Hexylene glycol, dms., c.l., dlvd	lb.	.17½	—
dms., l.c.l., dlvd.	lb.	.19	—
tanks, dlvd	lb.	.15	—
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd	lb.	14.00	—
dms. smaller lots, dlvd.	lb.	14.50	—
Homatropine hydrobromide, USP, bots.	oz.	3.25	—
methylbromide, USP, bots	oz.	3.00	—
Hootmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton		6.75	—
Horehound herb, bls.	lb.	.18	.20
Hydrastis (see Goldenseal.)			
Hydrazine hydrate, 85%, 240-lb. dms., c.l., works	lb.	1.28	—
240-lb. dms., l.c.l., works	lb.	1.35	1.55
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works	lb.	2.92	—
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd. zone 1	lb.	.29¼	—
dms., l.c.l., dlvd. zone 1	lb.	.29¾	.30¼
tanks, dlvd. zone 1	lb.	.27¼	—

Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.

Hydrobromic acid, medicinal, 48%, cbys., frt. equald	lb.	.48	.56
Hydrochloric acid, anhyd. (see Hydrogen chloride.)			
Hydrochloride acid, 18°, cbys., c.l., works	100 lbs.	2.80	—
cbys., l.c.l., dlvd. Metropolitan area	100 lbs.	2.90 -	3.00
tanks, works, frt. equald	ton.	28.00	—
20°, cbys., c.l., works	100 lbs.	2.75	—
cbys., l.c.l., dlvd. Metropolitan area	100 lbs.	3.15	—
20°, tanks, works, frt. equald	ton.	30.00	—
22°, cbys., c.l., works	100 lbs.	3.25	—
cbys., l.c.l., dlvd. Metropolitan area	100 lbs.	3.65	—
tanks, works, frt. equald	ton.	35.00	—
Hydrochloric acid, CP, USP, consumers, cbys, extra, c.l., works	lb.	.15¾	—
cbys, l.c.l., same basis	lb.	.17¼	.17¾
5-pint bots., extra cs, c.l., same basis	lb.	.20¾	—
Hydrocortisone acetate, bulk, bots., kilo lots or more	gram.	.85 -	.90
Hydrocortisone alcohol, bulk, bots., kilo lots or more	gram.	1.00 -	1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pint bots., f.o.b. works,	pint.	.70	—
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)			
Hydrofluoric acid, aqueous, 70%, 55-gal. or 30 gal. dms., c.l., t.l., dlvd	100 lbs.	17.25	—
55-gal. dms., l.c.l., t.l., dlvd	100 lbs.	18.75	—
20-gal. dms., c.l., t.l., dlvd	100 lbs.	19.00	—
20-gal., dms., l.c.l., t.l.l., dlvd.	100 lbs.	20.50	—
tanks, works frt. equald	100 lbs.	11.50	—

Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.75 per cwt. for drum delivery

Hydrofluosilicic acid, dms., works, 30% basis	lb.	.07	—
Hydrofuramide, dms., fib. ctns., works	lb.	.30 -	.40
50-lb. cyls., l.c.l., works	lb.	.55 -	.60
Hydrogen chloride, anhyd., 50-lb. cyls., l.c.l., works	lb.	.45	—
Hydrogen cyanide, liq., 98%, tanks, works	lb.	.13	—
Hydrogen fluoride, annyd., cyls., dlvd. E.	lb.	.29 -	.31
cyls., dlvd. W.	lb.	.37	—
tanks, works	lb.	.16	—
Hydrogen peroxide, 35%, dms., c.l., dlvd	lb.	.202	—
dms., l.c.l., dlvd.	lb.	.211	—
tanks, dlvd	lb.	.1800	—
Hydroquinone, photo grade, dms., 50-lbs., f.o.b. works	lb.	1.10	—
Tech., dms., c.l., dlvd.	lb.	.82½	—
dms. l.c.l. dlvd	lb.	.84½	—
Hydroquinone monomethyl ether, dms., t.l., dlvd	lb	2.59	—
dms., t.t.l., dlvd	lb	2.61	—
Hydroxyacetic acid, tech., 70% dms. Philadelphia and Chicago	lb.	.11	—
tanks Belle W Va	lb	.073	—
Hydroxycitronellal, cns.	lb.	5.65 -	6.00
Hydroxyethyl cellulose, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point	lb.	.69	—
fib dms. 2,000 to 19,999-lb lots, same basis	lb.	.77	—
Hydroxyethyl cellulose, fib., dms., 100 to 1,999-lb. lots, basis	lb.	.81	—
fib. dms., smaller lots, same	lb.	1.01	—

Hyoscine salts (see Scopolamine).			
Hyoscyamine hydrobromide, bots.	oz.	7.75	8.50
Hyoscyamine sulfate, bots	oz.	7.75	8.50
Hypophosphorous acid, purit., 50%, 10-cbys. f.o.b works	lb	1.95	—
NF, 50%, 10-cbys., same basis	lb.	1.35	—

I

Ichthammol, NF, dms.	lb.	.75 -	1.05
Indigo (see Dyes, Coaltar, 1171 indigo, syn.).			
Indole, CP, bots	lb.	13.65	-15.00
Inositol, 50-100 lb. dms., 1,000 lbs. or more, dlvd	lb.	4.50	—
50-lb. dms., less than 1,000 lb., dlvd	lb.	4.75	—
10 lb. cns., 10-50 lbs., dlvd.	lb.	5.00	—
5 lb. bots., dlvd.	lb.	5.25	—
Insect flowers (see Pyrethrum).			
Iodine, crude, kgs.	lb.	1.10	—
Resub., USP, dms., f.o.b. works	lb.	2.20 -	2.22
Iodochlorohydroquinolin, USP, dms.	lb.	3.60	—
Iodoform, NF, dms., 300-lbs., f.o.b. works	lb.	4.90	—
dms., 100-lb., same basis	lb.	5.05	—
a-Ionone, cns.	lb.	4.60	- 5.75
b-Ionone, cns.	lb.	4.15	- 6.15
Ipecac root, whole, bgs.	lb.	8.00	- 8.50
Powd., bbls., bxs	lb.	9.50	-10.00
Irish moss, bleached, prime, bls	lb.	.35	—

Assumption:

You're now selling 100,000 gallons of lacquer @ $2.00 per gallon.

Assumption:

Your profit after deducting the cost of materials, labor, overhead, and sales and service expense is $20,000.00, or 10%.

Assumption:

You'd like to increase your profit by $1750.

Question:

How to do it?

Answer No. 1:

Sell 8750 more gallons of lacquer.

Answer No. 2:

Switch from n-butyl to **isobutyl acetate** in your formulation.

Assuming your lacquer formulation contains from 13 to 14% n-butyl acetate, or about one pound per gallon of lacquer, you can reduce the cost on every gallon by 1¾ cents simply by switching to isobutyl acetate. If you are in the 100,000 gallon bracket, that's a saving of $1750. We figure you'd have to sell an additional 8750 gallons of your present lacquer to net this amount.

Figure it out for yourself. Or just call your nearest Eastman representative.

Eastman CHEMICAL PRODUCTS, INC., subsidiary of Eastman Kodak Company, KINGSPORT, TENNESSEE.

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; Atlanta; Boston; Buffalo; Chicago; Cincinnati; Cleveland; Detroit; Greensboro, N. C.; Houston; Kansas City, Mo.; New York City; Philadelphia; St. Louis. **Western Sales Representative: Wilson & Geo. Meyer & Company,** San Francisco; Los Angeles; Salt Lake City; Seattle.

Iron Blue—Lead Metal

Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .60 • —
bbls., l.c.l., ton lots, same basis. lb. .61 • —
bbls., smaller lots, same basis. lb. .62 • —
Dom., reg. bbls., c.l., dlvd. E lb. .55 • —
alkali-resistant, dom., reg., bbls., c.l., ton lots, same basis lb. .56 • —
bbls., l.c.l., smaller lots, same basis lb. .57 • —
Imp. British reg. bbls. c.l. dlvd. E lb. .48 • —
bbls., l.c.l., ton lots, same basis lb. .49 • —
Iron blue, imp., British, reg., bbls., l.c.l., smaller lots, same basis lb. .50 • —
Iron blue dlvd. prices 1c higher for Pacific Coast states: Wash., Ore., Cal., N. M., Ariz., Mont., Wyo., Utah, Col. and Nev.
Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure, bgs., c.l., works lb. .14¾- —
bgs., l.c.l., works lb. .15 • —
Iron oxide, brown, pure, bgs., c.l., works lb. .14¼- —
bgs., l.c.l., works lb. .14½- —
Iron oxide, metallic, brown, bgs., works lb. .05½- —
Iron oxide, Persian Gulf, red., bgs., c.l., works lb. .08¾- —
Iron oxide, red, dom., pure, bgs., Bethlehem, E. St. Louis, New York City lb. .14¼- —
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works lb. .06¼- —
bgs., l.c.l., works lb. .06½- —
Iron oxide, Spanish red, bbls., c.l., ex dock lb. .05¾ Nom.
bbls., l.c.l., ex dock lb. .06 Nom.
bbls., l.c.l., ex whse, New York. lb. .06½ Nom.
Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¾- .07
Peruvian type, bgs., l.c.l lb. .023 .024
Iron oxide, yellow, pure, light lemon shade bgs. c.l., works lb. .12¼- —
other shades, same basis lb. .12 • .12½
Isoamyl alcohol, dms., c.l., works, frt. alld E lb. .27½- —
Isoamyl alcohol, dms., l.c.l., same basis lb. .29 • —
tanks, same basis lb. .25 • —
Isoborneol, cns. lb. 1.44 • 1.80
Isobornyl acetate, cns. lb .46 • .56
Isobornyl formate, dms lb. 1.15 • 1.20
Isobornyl propionate, dms lb. 1.20 • 1.25
Isobutyl acetate, perfume grade, cns lb. .30 • .35
Solvent grade, dms., c.l., dlvd. E. of Rockies lb. .15¼- —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 • —
tanks, dlvd. lb. .13 • —
Isobutylene, 99%, tanks, works gal. .38 • —
Isobutyl isobutyrate, dms., f.o.b. works lb. .75 • —
Isobutyraldehyde, tech., dms., c.l., dlvd lb. .22 • —
dms., l.c.l., dlvd. lb. .23½- —
tanks, dlvd. lb. .19½- —
Isobutyric acid, dms., c.l., t.l., dlvd. lb. .35 • —
dms., l.c.l., t.t.l., same basis lb. .36½- —
t.c. t.t., same basis lb. .33 • —
Isobutyronitrile, d.ns., c.l., dlvd. lb. .47½- —
dms., l.c.l., dlvd lb. .48½- —
tanks, dlvd. lb. .45 • —
Isoeugenol, cns. lb. 3.10 • 3.40
Isoniazid, powd., bulk, 50 kilos kilo. 12.00 • —
Isonicotinic acid, 100-lb. fib. dms., works lb. 4.25 • —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .20½- —
dms., l.c.l., dlvd. E lb. .22 • —
tanks, dlvd. E lb. .18 • —
Isopentane, comi. grade, tanks, f.o.b. Tex. refy. gal. .16½- —
Isophorone, dms., c.l., dlvd. lb. .25 • —
dms., l.c.l., dlvd. lb. .26½- —
tanks, dlvd. lb. .22½- —
Isophthalic acid, dms., c.l., works, frt. equald lb. .17 • —
dms., l.c.l., same basis lb. .18 • —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms., c.l., dlvd. lb. .14 • —
dms., l.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd. gal. .58 • —
dms., l.c.l., dlvd. gal. .68 • —
tanks, dlvd. gal. .42 • —
Isopropyl alcohol, 95%, c.l., dms., dlvd. gal. .60 • —
dms., l.c.l., dlvd. gal. .70 • —
tanks, dlvd. gal. .44 • —
Anhyd., c.l., dlvd. gal. .62 • —
dms., l.c.l., dlvd. gal. .72 • —
tanks, dlvd. gal. .46 • —
Isopropyl benzene (see Cumene).
Isopropyl ether, dms., c.l., dlvd. lb. .09½- —
dms., l.c.l., dlvd. lb. .11 • —
tanks, dlvd. lb. .07 • —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l., t.l., works lb. 1.00 • —
dms., l.c.l., works lb. 1.05 • 1.25
tanks, works lb. .99 • —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works lb. .75 • —
450-lb. fib. dms., l.c.l., works lb. .80 • .90
Isoquinoline, dms., works lb. .65 1.25
Itaconic acid, refd. bgs. c.l., t.o.b. works lb. .39½- —
bgs., l.c.l., same basis lb. .41 • .43
Tech., bgs., c.l., same basis lb. .34½- —
bgs., 500-lbs. same basis lb. .36 • —

J

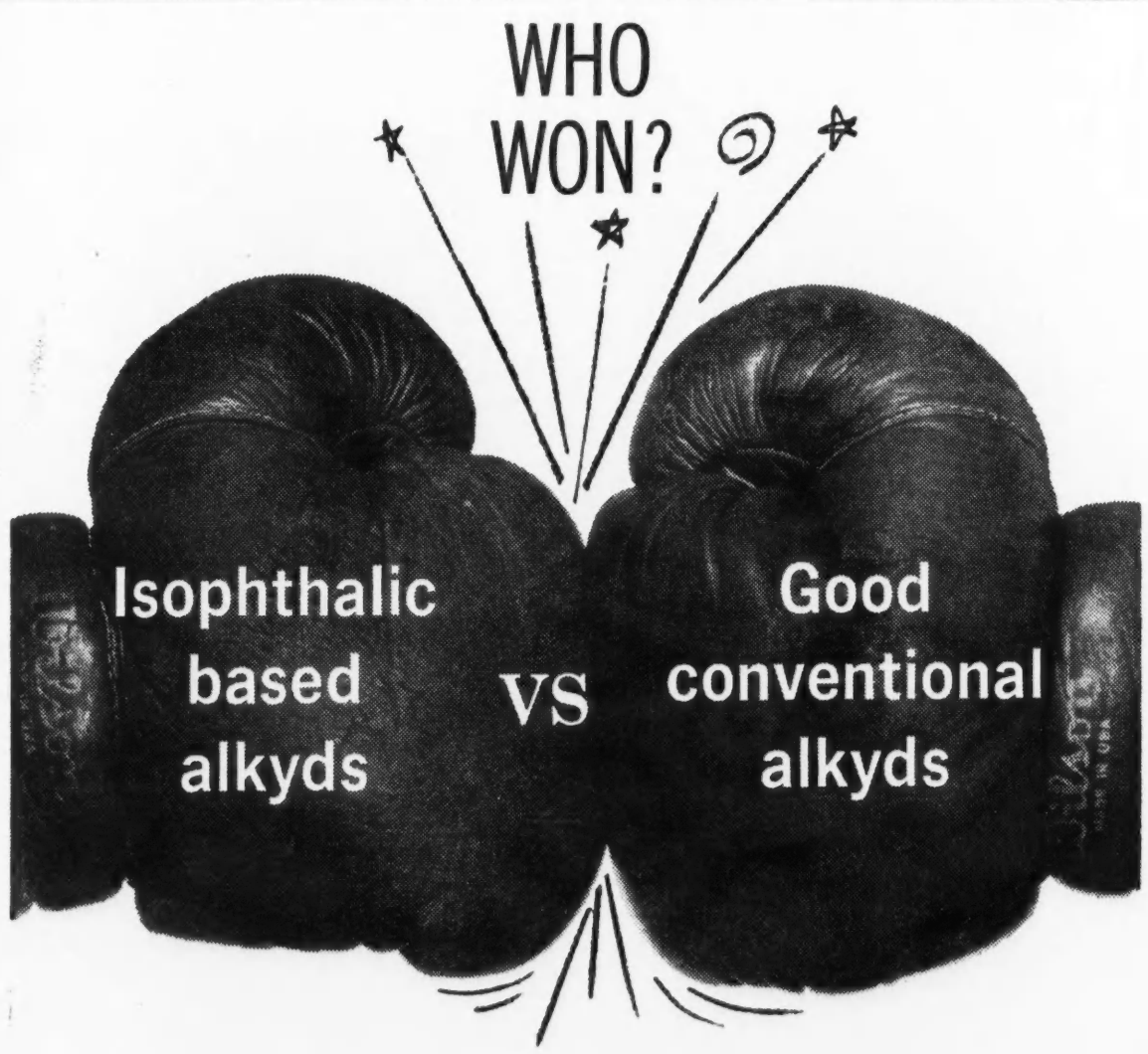
J acid, paste, bbls., works, 100% basis lb 2.70 • —
Powd., bbls., same basis lb. 2.75 • —
Jalap root, NF, bls lb. .55 • .60
NF, powd., bbls., bxs lb. .65 • .70
Japan wax, cs. lb. .29 • .31
Juniper berries, bgs lb. .25 • .30
Juniper berry oil, NF, bots. lb. 2.90 • 3.75
Twice rectified, bots. lb. 3.25 • —
Juniper tar oil, NF, dms. lb. .42 • .60
Juniper wood oil, tech. cns. lb. .38 • .55

K

Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms lb. .10 • .12
NF, colloidal 50-lb. bgs. lb. .15½- .17¼
Karaya gum, No. 1, NF, powd., bls lb. .48 • .50
No. 2, powd., bbls. lb. .43 • .45
No. 3, powd., bbls. lb. .37 • .40
Koch acid, bbls., frt. alld., 100% basis lb. 1.00 • —
Kola nuts, bgs. lb. .11 • .12

L

L acid, bbls., works lb. 1.25 • —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York gal. .20 • —
Group 3 gal. .15125- —
Houston, Texas gal. .16 • —
200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 • —
Group 3 gal. .14125- —
Houston, Texas gal. .16 • —
Lactic acid, food processing, 50%, dms., c.l., t.l., dlvd. N.Y., Phila lb. .1986- —
dms., 20 or more, same basis, lb. .2036- —
Lactic acid, food processing, dms., 5 to 19, same basis lb. .2086- —
dms., 1 to 4, same basis lb. .2136- —
80%, c.l., dms., same basis lb. .3336- —
dms., 20 or more, same basis, lb. .3386- —
dms., 5 to 19, same basis lb. .3436- —
dms., 1 to 4, same basis lb. .3486- —
Plastic grade, 50%, c.l., bbls., works lb. .2740- —
bbls., 20 or more, works lb. .2790- —
bbls., 5 to 19, works lb. .2840- —
bbls., 1 to 4, works lb. .2890- —
Lactic acid, plastic grade, 80%, bbls., c.l., works lb. .4625- —
bbls., 5 to 19, works lb. .4725- —
bbls., 1 to 4, works lb. .4775- —
Tech., 44%, bbls., c.l., works. 100 lbs. 12.45 • —
bbls., l.c.l., works 100 lbs. 12.85 • —
USP, 85%, cbys. lb. .85 • —
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald lb. .14 • —
bgs., 6,000-lb. lots, frt. equald lb. .14½- —
bgs., 2,000-lb. lots, frt equald lb. .14¾- —
bgs., 200-lb. lots, frt. equald lb. .15¼- —
Edible lactose in fib. dms., ½c. higher.
ferment, grade, bgs., c.l., works. lb. .08¾- —
USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb. .21¼- —
fib. dms., 2,000-lb. lots, frt. equald lb. .22¼- —
200-1,880-lb. lots, frt. equald lb. .22¾- —
USP lactose in bags ½c. to 1c. lower.
USP, spray dried, bgs., t.l., frt. equald lb. .18½- —
bgs., l.t.l., frt. equald lb. 19 • .19¾
Lady's slipper root, bls lb. 3.00 • 3.50
Lamp black, bgs., c.l., works lb. .16 • .45
Lanolin, USP, anhyd., 400-lb. dms., works lb. .24 • .26
USP, annyd., cosmetic, 400-lb. dms., works lb. .26 • .30
USP, hydrous, 400-lb. dms., works, lb. .20 —
Lard, cash, dms., Chicago lb. .0795- —
Lard oil (see Grease oil).
Larkspur seed, bgs. lb. .55 • —
Laurel leaf oil, dms., cns. lb. 9.75 • 12.50
Laurent's acid, bbls lb. .87 • —
Lauric acid, pure, dms lb. .30¼- .32¾
bags lb. .28¾- .31¼
tanks lb. .27¾- —
Lauryl alcohol, bots lb. 2.00 • 2.50
n-Lauryl methacrylate, dms., c.l., t.l., works lb. .65½- —
dms., l.t.l., works lb. 66 • —
Lavandin oil, 22-24%, dms. lb. 1.15 • —
Abrial, dms. lb. 1.20 • —
Lavender flowers, medium, bls lb. .55 • .60
Ord., bls. lb. .20 • .25
Select., bls. lb. .90 • 1.00
Lavender flower oil, USP, French, 35-37% ester, cns lb. 1.85 • 4.00
40-42% ester, cns. lb. 3.50 • 3.65
Spike, Spanish, cns lb. 1.75 • 2.00
Lead acetate, NF, cryst., gran., powd., bbls lb. .34½- —
White, cryst., bbls. lb. .25½- —
gran., bbls. lb. .26½- —
powd., bbls lb. .26½- —
Lead arsenate, acid powder, dealers, 3-50-lb. bgs. or any quantity, frt. alld. on $150 or more lb. .30½- —
1-lb. bgs., same basis lb. .47 • —
Lead, blue, basic sulfate, bbls., c.l., shipt point, frt. alld lb. .17 • —
bbls., l.c.l., same basis lb. .18 • —
Lead carbonate (see Lead, white, basic carbonate).
Lead chloride, 400-lb. fib. dms lb. .56 • —
Lead iodide, NF V tare lb. 3.82 • —
Lead linoleate, fused, 24% liq. Pb, dms lb. .21¼- —
Lead metal, prime, pigs, New York. lb. .11 —
St. Louis lb. .1080- —



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U.S.I. CHEMICAL NEWS

Oc[illegible] A Series of Advertisements for the Chemical Process Industries 1961

System for Purifying and Metering Sodium Proved in Three Years' Operation

A pilot plant that provides sodium metering accuracy as well as efficient sodium purification has been developed by U.S.I. The pilot plant unit, designed to demonstrate the ease with which sodium may be handled, has given satisfactory performance in three years of operation at U.S.I.'s Cincinnati, Ohio, Research Center.

The system provides accurate metering of the sodium while maintaining the necessary low oxide content. Equally as important is the simplicity of design and the ease of operation that permit shift personnel to operate the unit.

A 300-gallon sodium storage tank supplies the system, which is blanketed with nitrogen. Molten sodium is pumped through a micrometallic filter at 220-230° F, the temperature at which calcium and sodium oxides are removed. Purified sodium then goes to metering tanks.

Primary and secondary tanks are provided to insure a uniform supply of so-

(Continued on next page)

Murray Named Manager of U.S.I. Minneapolis District

John N. Murray has been named Minneapolis District Sales Manager for U.S.I. He replaces William J. Brett, who has retired.

John N. Murray

William J. Brett

Mr. Murray joined U.S.I. after graduation as a chemical engineer from the University of Illinois in 1955, and shortly thereafter served two years in the U.S. Army. Since 1957, he has been with U.S.I.'s Minneapolis Sales District. Mr. Murray is a member of the National Credentials Committee of the Society of Plastics Engineers and is on the Board of Directors of the Twin Cities Chemical and Allied Trades Association.

Mr. Brett was manager of the U.S.I. Minneapolis Sales District since 1935. He will continue to represent U.S.I. in sales of sodium peroxide to the paper industry.

Complete Information on Ethyl Ether Presented in New Booklet

First Collection of Latest Specs for Major Grades of Ethyl Ether Included in Comprehensive, 46-Page U.S.I. Publication

A new booklet on Ethyl Ether, edited by U.S.I.'s technical service engineers, has just been published. Comprehensive and practical, the new brochure contains complete information on chemical, physical and physiological properties of ether as well as latest specifications and test procedures, and shipping, storage and handling data.

The booklet presents the first collection of current specifications for the three major grades of ethyl ether—including the new specifications for ethyl ether ACS absolute, recently published by the American Chemical Society. The new ACS absolute specs are presented along with those for Technical Refined and U.S.P. grades in a table that is indexed for easy reference to complete test methods that are given in the pages immediately following. U.S.I. is a leading marketer of all three grades, and has recently started up a new refining unit that produces ethyl ether meeting the new, more stringent ACS specs.

Technical Service Program

The sections in the new booklet on unloading and handling and storage present a detailed summary of the knowledge U.S.I. has accumulated in 35 years of providing such information to customers through its technical service program. The

(Continued on next page)

Tank Trucks Preferred for Mixed Solvent Shipments

Solvent users are swinging to tank truck shipments in preference to receiving deliveries in tankcars or drums. According to U.S.I.'s traffic records, tank truck shipments have increased from 38% of total solvent deliveries in 1958 to 52% for the first four months of this year. In the same period, tankcar deliveries have dipped from 36% to 33% of total solvent shipments, and drum shipments are down from 19% to 12%.

Major reasons for this trend are the speed of delivery possible by tank truck from distribution centers in strategic cities and the convenience and economy of ordering such solvents as butanol, acetone, n-butyl acetate and ethyl acetate in combination truck loads with U.S.I. specially denatured ethyl alcohol or SOLOX® and FILMEX® proprietary solvents. Solvent users get prompt delivery on combination tank truck shipments tailored to their needs, realizing savings in inventory and shipping costs as well as in delivery time.

SPECIFICATION	TECHNICAL REFINED		A.C.S. ABSOLUTE		U.S.P. XVI	
	limit	procedure	limit	procedure	limit	procedure
Maximum Specific Gravity	0.716 @ 20/20°C 0.713 @ 25/25°C	1b	no specification		0.716 @ 25/25°C	1b
Minimum Specific Gravity	0.712 @ 20/20°C 0.710 @ 25/25°C	1b	no specification		0.717 @ 25/25°C	1b
Maximum Density	no specification		0.7079 @ 25°C	1b	no specification	
Acidity, as Acetic Acid	0.0025% by weight maximum	2a	0.0015% by weight maximum	2b	passes test	2c
Non Volatile Matter	0.002% by weight maximum	3a	0.0010% by weight maximum	3b	0.003% by weight maximum	3c
Peroxides	passes test	4a	0.0001% by weight maximum	4b	passes test	4a
Chlorides	passes test	5	no specification		no specification	
Aldehydes	passes test	6a	0.0005% by weight maximum	6b	passes test	6a
Alcohol	0.5% by volume maximum	7	passes test	7a	no specification	
Water	0.1% by weight maximum	8a	0.05% by weight maximum	8b	no specification	
Odor	non-residual	9	passes test (limit about 0.05% by weight maximum)	9	passes test	9
Color	water white	10a	no specification		colorless	10b
Substances Darkened by Sulfuric Acid	no specification		passes test	11	no specification	
Packaging	no specification		no specification		as detailed	12

Table of latest ethyl ether specifications from U.S.I.'s new, comprehensive booklet.

Green Polyethylene Film Gives Improved Protection As Cover for Silos

A new green polyethylene film is being used by farmers as the latest refinement in horizontal silo covers. The 7-mil-thick film is said to be a great improvement over paper, sawdust, wheat, oats, and even black pigmented polyethylene film as a protective cover for trench and bunker silos. Used in this way, it helps provide better silage storage conditions at a fraction of the cost of upright silos.

Grease-proof, shrink-proof and resistant to chemicals, temperature and humidity, the covers use eye-pleasing green pigmentation to help ward off harmful ultraviolet sun rays. The covers' thickness provides strength for serviceability and long life (up to three years in normal use).

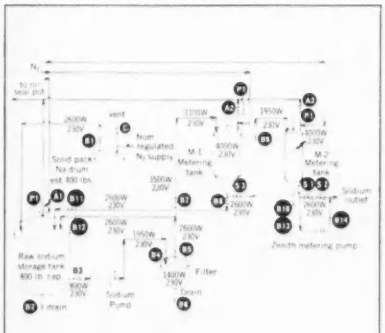
The 7-mil polyethylene film provides the farmer with the right type of material to guard against oxygen attack on silage nutrients and still allow for escape of excess gases which form under the cover during the storage period. U.S.I.'s PETROTHENE® polyethylene resin is used in the production of the covers. This green film is also being used in ice rink liners and swimming pool covers.

Purifying and Metering Sodium

(Continued)

dium to process. Metering is by gravity or pump, depending on the process pressure developed by the particular reaction involved.

Complete details on design and operating procedures are given in a new U.S.I. bulletin, "Sodium Purification and Metering." Copies are available from Technical Literature Dept., U.S.I. Chemical News, 99 Park Ave., New York 16, N. Y.



1 All pipe lines are Sch 40, black iron.
2 All valves in sodium lines are flanged bellows seal type.
3 All N. handling valves are needle type.
4 Graduated stick mounted parallel with the level probe not shown.
5 1½" to temp and 1½" 80% magnesia insulation on all lines.
6 All fittings are weld type.
7 Lines have a connected power input of 360 watts/foot.
8 Sodium drum heated by 3 - 3000 W band heaters.

A Designates N. vent valves
B Designates bellows seal sodium valves
C Back pressure regulating valves
S Solenoid valves

Sodium metering system for pilot plants.

Would You Like to Get "Chemical News" by Mail?

If you would like to make sure you see every issue of "Chemical News" or, if you keep a permanent file of them, as many readers do, ask to be put on the mailing list. Just write The Editor, U.S.I. Chemical News, 99 Park Ave., New York 16, N. Y.

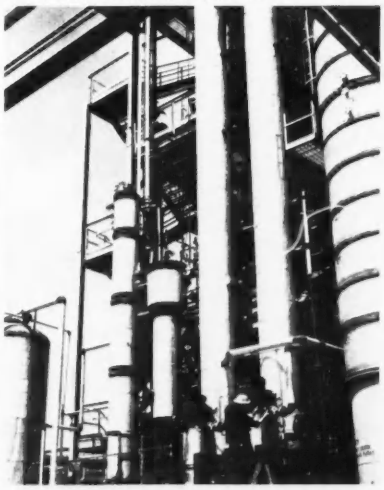
Ethyl Ether Booklet *(Continued)*

recommended procedures and precautions in the booklet are intended to serve as a guide to both bulk and drum users of ether. As in the past, U.S.I.'s trained technical service men are available to assist in specific problems as the need arises.

The section on physiological properties contains detailed instructions on safety precautions, protection of personnel and first aid procedures.

A bibliography is provided for those seeking information on any aspect of ethyl ether use beyond the scope of the booklet.

For your personal copy of "U.S.I. Ethyl Ether," write to Technical Literature Department, U.S.I. Chemical News, 99 Park Avenue, New York 16, N. Y.



New U.S.I. ethyl ether refining unit at Tuscola, Illinois.

ACS Announces New Journal On Inorganic Chemistry

The American Chemical Society will start publication of a new basic journal, "Inorganic Chemistry," in February, 1962. It will be issued initially as a quarterly with 200 pages per issue.

The journal will provide a concentration of papers ranging throughout the inorganic field from the borders of organic chemistry to the borders of theoretical physics. Key criterion is that papers be related in general terms to active research areas of inorganic chemistry.

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U.S.I.

Convenient, light-weight source of hydrogen is provided by pelleted mixture of sodium borohydride and cobalt chloride. Pellets react catalytically with water to produce hydrogen for industrial and laboratory applications. **No. 1760**

Benzoyl formic acid (phenyl glyoxylic acid) and **methyl benzoyl formate** are now available in development quantities. Suggested uses are as intermediates for pharmaceutical, veterinary and agricultural chemicals. **No. 1761**

Heat transfer symposium papers are now being sold in paper-bound, 300-page book. Covers latest advances in heat transfer as presented in 30 A.I.Ch.E. papers, along with discussions of a number of the papers. **No. 1762**

New marketing service for rubber and plastics industries will provide abstracts of material from over 200 prime marketing sources. Designed to supply information needed by market researchers in the polymer industries. **No. 1763**

Special-purpose slide rules and calculators save time and eliminate steps in solving problems. Being sold are solution concentration and gas law slide rule, pH calculator, chemical predictor, universal kit for special designs. **No. 1764**

New nitrile-containing silicone fluids, recently introduced as experimental materials, are described in a new technical bulletin. Publication gives typical properties of available grades as well as some suggested uses. **No. 1765**

Nine ultra-high purity metals (99.999+% pure) are now being produced on a commercial scale—antimony, arsenic, bismuth, **cadmium**, gold, indium, selenium, silver and tellurium. For use in electronics and thermoelectric devices. **No. 1766**

Interchangeable respiratory protection provided with one facepiece and a variety of filters and chemical cartridges is described in a new bulletin. Used against such airborne hazards as dust, organic vapors, acid gases, and metal fumes. **No. 1767**

Resistances of various acid-proof cements to over 75 corrosive chemicals at 75°F and 140°F are presented in chart form in new bulletin. Useful as a guide in selecting proper cement for corrosion-proof installations. **No. 1768**

Organo-metallic compounds are the subject of a new book bringing up to date and expanding a 1956 monograph. Covers: alkali metals; Group II; Group III; Group IV; antimony and bismuth; and transition elements. **No. 1769**

Please use number when writing.

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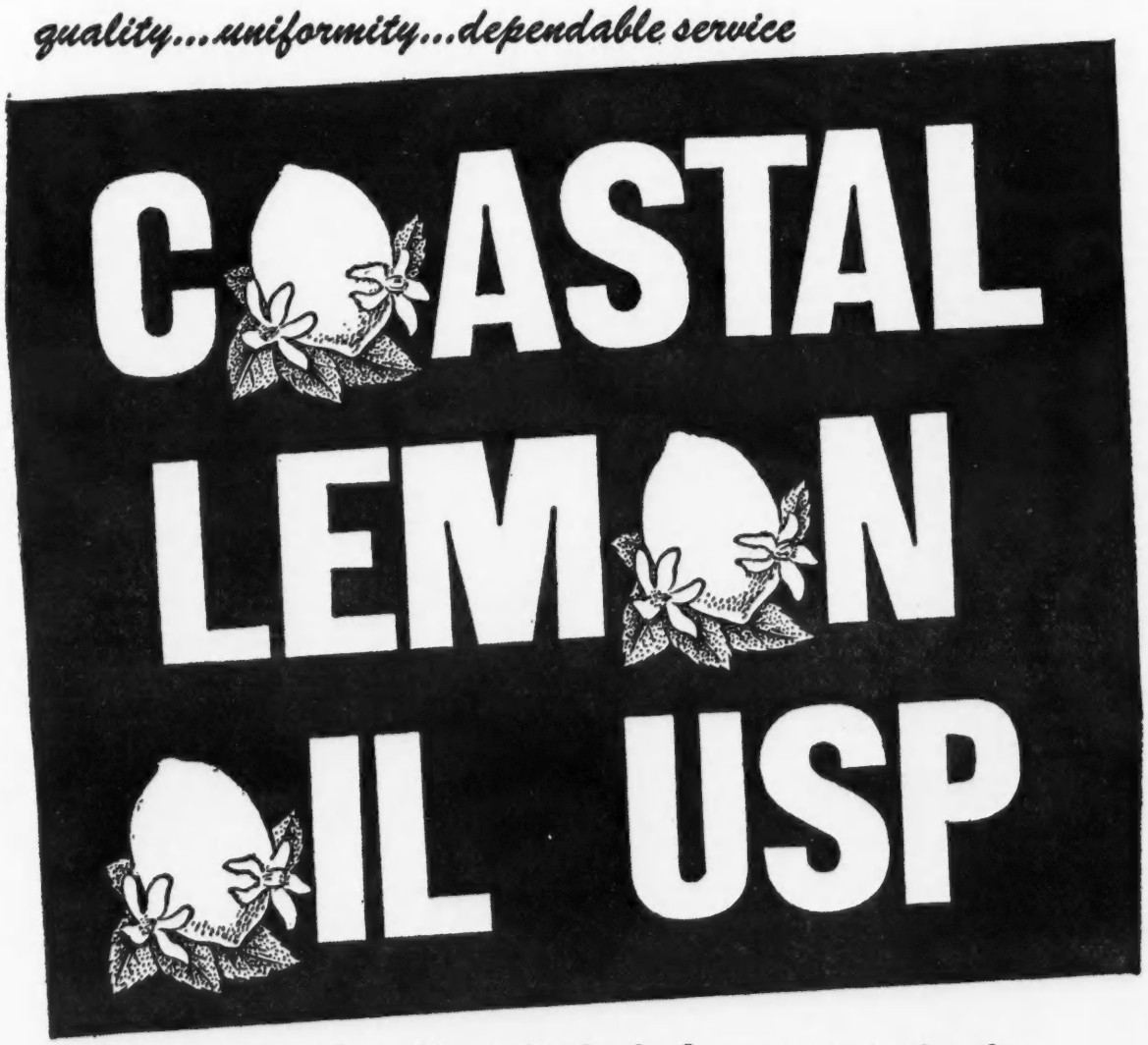
Lead monosilicate, bgs., c.l., works, frt. equald lb. .1385- —
bgs., l.c.l., same basis lb. .1485- —
Lead naphthenate, liq., 16% Pb., dms., dlvd lb. .19½- —
24% Pb., dms., dlvd. lb. .24¼- —
Solid, 37% Pb., dms., dlvd. lb. .31¾- —
Lead nitrate, tech., cryst., 400-lb. fib. dms lb. .2675- —
Lead orthosilicate gel., 50-60% PbO, dms., works lb. .29¾- .34¼
Lead peroxide, tech. powd., bbls lb. .45 - .50
Lead phthalate dibasic, dms. works lb. .41 - —
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald. lb. .1375- —
bbls., l.c.l., same basis lb. .1475- —
97%, Pb_3O_4 or less, bbls., same basis lb. .1395- —
bbls., l.c.l., same basis lb. .1495- —
98% Pb_3O_4, bbls., c.l., same basis lb. .1410- —
bbls., l.c.l., same basis lb. .1510- —
Lead, resinate precip., 23%Pb. dms., lb. .49 - —
Lead salicylate, normal dms. works lb. .46 —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld lb. .20 - —
bgs., l.c.l., same basis lb. .21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate, liq., 16% Pb, dms lb. .17¼- —
24% Pb, dms lb. .21¼- —
Solid, 30% Pb, dms lb. .26¾- —
Lead, white, basic carbonate, bgs., c.l., shipt pt., frt. alld lb. .18 - —
bgs. l.c.l. same basis lb. .19 - —
Basic silicate, bgs., c.l., shipt. pt., frt. alld. lb. .16½- —
bgs., l.c.l., same basis lb. .17½- —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works, lb. .14 - .15
non-ret. dms., l.c.l., same basis lb. .15 - .16
unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret. dms. l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex, 50 kilos, f.o.b. works kilo. 14.20 - —
Lemon oil, USP, Calif., cns., dms. lb. 2.45 - 3.75
Messina, cns lb. 4.00 - 6.50
Lemongrass oil, cns., dms lb. 3.00 - —
dl-Leucine, dms., 1 kilo, works kilo. 50.00 - —
Licorice root, gran., bbls. lb. .13 - —
Powd., bbls. lb. .15 - .16
Whole, bbls. lb. .09 - .10
Lignaloe wood oil, Mexican, cns. lb. 2.75 - 3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate)
Lilac oil lb. 1,500.00
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs. works, E. ton. 14.25 - —
Chemical, hydrated, bgs., c.l., same basis ton. 17.25 - —
spray, bgs., c.l., same basis ton. 18.25 - —
For New York delivery, add $6.29 freight charge
Lime oil, dist., Mexican, dms. lb. 5.25 - 6.00
West Indian, dms. lb. 5.25 - 6.00
Expressed, West Indian, dms lb. 6.50 - 7.75
Lime salts (see Calcium).
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool, ex bois de rose oil, dms. lb. 2.45 - 4.25
Syn., 98-100%, dms., works lb. 3.20 - —
Linalyl acetate ex bois de rose, 90-92%, dms lb. 2.65 - 4.50
96-98%, dms lb. 3.25 - —
Syn., 98-100%, dms., works lb. 3.20 - —
Lindane, 25% formulation, to distributors, dms., frt. alld. lb. 1.35 - 1.50
99%, tech. to formulators, 250-lb. dms., 5,000 lbs., dlvd lb. 2.13 - —
100-lb dms., 5,000-lbs., dlvd lb. 2.15 - —
250-lb. dms., less than 5,000-lbs., dlvd lb. 2.18 - —
100-lb. dms., less than 5,000-lbs. dlvd lb. 2.20 - —
Linden flowers, with leaves, bls lb. .35 - .40
Without leaves, bls. lb. .42 - .45
Linseed meal, expeller, 32%, bulk, Minneapolis, mills ton. 60.50 - —
Extracted, 34%, bulk, same basis ton. 54.00 - —
Linseed oil, raw, dms., c.l., New York lb. .1880- —
dms, l.c.l., New York lb. .2060- —
tanks, f.o.b. Minneapolis lb. .1520- —
tanks, New York lb. .1628- —
tankwabon, New York lb. .1653- —
Boiled linseed oil, .006c. per lb. higher.
Linseed oil acid, water white, dms lb. .2975- .31
Litharge, coml., powd., bbls., c.l., works, frt. equald lb. .1325- —
bbls., l.c.l., same basis lb. .1425- —
Lithium aluminum hydride, lump, dms., works lb. 33.00 - 39.00
Lithium benzoate, dms. lb. 1.65 - 1.67
Lithium bromide, NF, gran., bgs., works, frt. equald lb. 2.60 - —
Lithium carbonate, NF, dms., ton lots lb. .58 - —
dms., 1,999 lbs. or less lb. .64 - —
Tech., dms., ton lots lb. .57 - —
dms., 1,999 lbs. or less lb. .63 - —
Lithium chloride, CP, anhyd., dms., ton lots lb. 1.23¼- —
Tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld lb. .87 - .88
dms. l.c.l. same basis lb. .88 - .89
Lithium citrate, NF, dms., ton lots, lb. 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd lb. 1.75 - —
bbls., ton lots and more, dlvd lb. 1.85 - —
bbls., less ton lots, dlvd lb. 1.90 - —
Lithium hydride, powd., dms., 500-lbs. lots or more, works, lb. 9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld lb. .54 - —
dms., l.c.l., frt. alld. lb. .58 - —
Lithium manganite, dms., works lb. .95 - 1.06
Lithium nitrate, tech., dms., 100-lb. lots lb. 1.15 - 1.25
Lithium salicylate, dms. lb. 1.60 - 1.70
Lithium silicate, dms., works lb. 1.10 - 1.20
Lithium stearate, dms., c.l., works, lb. .47½- —
dms., ton lots, works lb. .48½- —
dms., less-ton lots, works lb. .53½- —
Lithium sulfate, dms., 100-lb. lots, lb. 1.15 - 1.25
Lithium titanate, dms., works lb. 1.15 - 1.25
Lithol red toner, barium, bbls., works lb. 1.03 - —
Lithol-rubine red toner, pure, bbls., works lb. 1.65 - —
Resinated, bbls., works lb. 1.47 - —
Lithopone, ord., bgs., c.l., dlvd. E. lb. .08¾- —
bgs., l.c.l., dlvd. E. lb. .09¼- —
Titanated (high-strength), bgs., c.l., dlvd. lb. .11 - —
bgs., l.c.l. dlvd. lb. .12 - —
Lobelia herb, bls. lb. .80 - —
Lobeline sulfate, bots., 50-oz. lots, works oz. 30.00 - —

Locust bean gum, powd., bgs. lb. .38 - .40
Lycododium, cs. lb. 2.50 - 3.00
l-Lysine monohydrochloride, 25-lb. dms. lb. 4.95 - —

M

Mace, Siauw, No. 1, bls. lb. 1.30 - 1.35
No. 2, whole, bls. lb. 1.20 - 1.25
siftings, bls. lb. 1.15 - —
Mace oil, dist., cns., dms. lb. 8.00 - 10.00
Magnesia, calcined, tech., bgs., ctns, frt. equald. lb. .25¾- .26½
Tech., syn., rubber grade, light, bgs., c.l., frt. equald lb .28¾- .30
rubber grade, extra light, bgs., c.l., frt. equald lb. .28 - —
bgs., l.c.l., frt. equald lb. .28¾- —
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points
Magnesia, calcined, tech., heavy, 85%, bgs., c.l., f.o.b. Lunning, Nev ton. 39.50 - —
91%, bgs., c.l., same basis ton. 49.50 - —
95%, bgs., c.l. same basis ton. 59.00 - —
USP, light, bgs. lb. .36½- .37½
USP, heavy, bgs. lb. .36½- .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald ton. 86.25 - —
Deadburnt, standard grain, bulk, c.l., Chawelah, Wash. ton. 46.00 - —
Magnesium bromide, 80-lb. dm., f.o.b. works lb. 1.15 - —
Magnesium carbonate, tech., bgs., c.l., frt. equald lb. .11 - —
bgs., t.l., frt. equald lb. .11½- —
bgs., l.c.l., frt. equald lb. .13½- .14
Magnesium carbonate, USP, bgs., c.l., frt. equald lb. .13½- —
bgs., t.l., frt. equald lb. .14 - —
bgs., l.c.l., frt. equald lb. .15 .16
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.
Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l., works lb. .12¾- —
dms. l.c.l., works lb. .14 - .15
hydrous, 98%, flake, bgs., c.l., works ton. 60.00 - —
bgs., l.c.l., works ton. 75.00 - 100.00
Magnesium gluconate, 100-lb. dm., f.o.b. works, E lb. 1.42 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b. works lb. .24½- .25½
Magnesium lauryl sulfate, dms., c.l., frt. alld lb. .22½- —
dms., t.l.l., frt. alld. lb. .23½- —
tanks, frt. alld. lb. .21½- —
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works lb .36 - —
pigs., 10,000-lb. lots or more, works lb. .35¼- —
sticks, cs., works, same basis lb. .59 - —
Magnesium nitrate, cryst., dms., works lb. .29 - —
Magnesium oxide (see Magnesia calcined).
Magnesium phosphate, trihasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc).
Magnesium silicofluoride, dms., works lb .10½- .13
Magnesium sulfate, tech., bgs., c.l., works 100 lbs. 2.15 - —
bgs, l.c.l., works 100 lbs 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
bgs., l.c.l., 5,000 lbs., 1 with-drawal 100 lbs 3.10 - —
bgs., smaller lots 100 lbs 3.35 - —
Magnesium trisilicate, USP, powd., fib. dms., 5,000-lb. lots lb. .38 - —
fib. dms., 1,000-lb. lots lb. .40 - —
fib. dms., 100-lb lots lb. .45 - —
USP, micronized powd., dms., 500-lb. lots lb. .80 - —
Malachite green, straight, PTA, bbls., works lb. 5.30 - —
Malathion, dms., c.l., works lb. .89 - —
dms., l.c.l., works lb. .92 - 1.01
Maleic acid, cryst., powd., dms lb. .37¼- —
Maleic anhydride, dms., c.l., frt. equald lb. .24 - —
dms., l.c.l., frt. equald lb. .25½- —
tanks, frt. equald lb. .22½- —
Maleic anhydride in bags ½c. per lb. less.
Malic acid, tech., dms lb. .50 - —
Mandelic acid, NF, dms., 1,000-lb. lots lb. 2.35 - —
dms., smaller lots lb. 2.40 - 2.50

quality...uniformity...dependable service



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Mandrake root, bls..... lb. .42 - .46
Manganese acetate, dms., dlvd lb. .35 - —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb lots, works lb. .21¾- —
smaller lots, works lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton 148.00 - —
40,000 to 99,999-lb lots, paper bgs., same basis ton 144.50 - —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb lots, dms same basis ton 152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher
Manganese gluconate, dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophospnite, NF dms. lb. 3.52 - —
Manganese linoleate, liq. 6% Mn, dms lb. .26½- —
Solid, precip., 8.2% Mn. bbls lb. .41¼ —
Manganese metal, electrolytic, dms., c.l., dlvd. E lb. .34½- —
dms., ton lots, dlvd E lb. .37 - —
dms., smaller lots, dlvd E lb. .39 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .29¾- —
Manganese resinate, fused, 3½% Mn, dms lb. 29¼- —
Precip., 6½-7% Mn, dms. lb. .42 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd. S. E ton 86.50 - —
bgs. t.c.l., dlvd S., E ton 93.50 - —
75%, $MnSo_4$, 30-tons, same basis 85.00- —
Manganese tallate 6%, dms. ... lb. .26½- —
Manila copal gum, C, bgs ..... lb. .35 .39
DBB, bgs. ..... lb. .26½- .28
DK, dust, bgs. ..... lb. .14 Nom.
MA, soft, bgs. ..... lb. .20 .24
WS, bgs ..... lb. No stocks.
Mannitol, com'l fib dms., ton lots, works lb. .60 - —
fib dms., to ton lots, works lb. .62 - —
fib dms., single dm., works lb. .65 - —
Marine pitch, dms lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works lb. .26½- —
bgs., l.c.l., works lb. .28 - —
Menadion, USP bots. gram. .044 .05
Menhaden oil crude, tanks, works, Atl. & Gulf ports lb. .05½- —
Menthol, nat USP, Brazilian large crys.als, cs lb. 7.40 - 7.60
Nat. USP Brazilian, regular crystals, cs lb. 7.30 - 7.50
Japanese, cs. lb. 10.25 -10.50
Syn., USP, racemic, 25-lb lots lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 - —
bgs. fib dms. less ton lots, same basis lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib dms., ton lots, works, frt. alld lb. .54 - —
bgs. fib dms. less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst. dms., 100 lbs., f.o.b works lb 4.03 - —
USP gran or powd., 50-lb dm., 100 lbs. f.o.b works lb 3.78 - —
Mercuric cyanide, NF VIII powd., fib dms lb 5.84 - —
Mercuric iodide, red, NF 100-lb. dm. f.o.b works lb 6.97 - —
Mercuric oxide, red, NF IX 50-lb. dm. 100 lbs. f.o.b works lb 4.72 - —
tech, 50-lb dm. 100 lbs. same basis lb 4.52 - —
yellow, NF, 50-lb. dm., 100 lbs., same basis lb. 4.89 - —
tech., dms., 100 lbs. lb. 4.35 - —
25-lb. fib. dm. lb. 4.38 - —
Mercurous chloride (see Calomel)
Mercury, ammoniated (see White precipitate USP XV)
Mercury metal, 76 lbs. per flask net-flask 188.00 -190.00
Mesityl oxide dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd lb. .12½- —
Meta aminophenol (see m-Aminophenol)
Metachloroaniline (see m-Chloroaniline)
Metanilic acid, dms., works lb. .57 - .75
Metanitroparatoluidine (see m-Nitro-p-toluidine)
Metanitroaniline (see m-Nitroaniline)
Metaphenylenediamine (see m-Phenylenediamine)
Metatoluidine (see m-Toluidine)
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid glacial 98%, dms. truckloads frt equald lb. .42½- —
dms. smaller lots, frt equald. lb. .43 .75
tanks works, frt. equald lb. .40 - —
Methanol, nat, denaturing grade, tanks, frt alld gal. .85 - —
Syn., zone 1, dms., c.l. or t.l. min dlvd gal. .51½ —
dms. t.c.l. dlvd gal. .61½ —
Syn., tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area gal. .35 - —
tankwagon, 4,000 gal min., dlvd gal. .30 —
tankwagon, 4,000 gal min., f.o.b terminal gal. .29 —
Syn., zone 2, dms., c.l., t.l., min., frt. alld. or dlvd. gal. .55½- —
dms. t.c.l., works gal. .65½- —
tankwagon, 2,000-4,000 gal. lots, min., dlvd. Metropolitan area gal. .39 - —
tanks, 4,000 gal. min. dlvd. gal. .34 —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b works, frt equald lb 21.75 - —
Methapyrilene hydrochloride, 100-999 lbs. dms. f.o.b works, frt equald lb 27.25 - —
Methenamine (see Hexamethylene tetramine).
Methionine, hydroxyanalogue, calcium salt) 90% min., dms. t.l., frt alld lb 1.10 - —
dms., t.t.l., same basis lb 1.16 - —
dl-Methionine, fib dms., frt alld., 50-lb. or more lb 2.50 - —
Feed grade, 98% fib dms. same basis lb 1.43 - —
Methoxychlor 50% wettable powder, dealers, dms. cs lb .66 - —
Methyl abietate, non-ret dms., c.l., dlvd zone 1 lb. .21½- —
non-ret. dms., l.c.l., same basis lb. .22 - .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd zone 1 lb. .23½- —
non-ret. dms., l.c.l., same basis. lb. .24 .24½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Methyl acetone, nat. dms., t.c.l., E of Miss. frt alld gal. .62½- —
Syn., dms., c.l., frt. alld. E gal. .60½- —
dms., l.c.l., frt. alld. E gal. 70½- —
tanks, frt. alld. E. gal. .44½- —
Synthetic methyl acetone E territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., dlvd. lb. .35¼- —
dms., t.t.l., dlvd lb. .36¼- —
tanks, dlvd. lb. .32¼- —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., t.c.l., dlvd E. lb. .18½- —
tanks, dlvd. E. lb. .14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 - —
dms., t.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Methyl amyl ketone, dms., c.l., t.l., f.o.b works lb. 1.99¼- —
dms., l.c.l., same basis lb. 2.00 - —
N-Methylaniline, tech., tanks, frt. alld lb. .60 - —
Methylanthranilate, cns. lb. 2.20 - 2.70
Methyl benzoate, cns., dms. lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .62 - .72
on 100 lbs lb. .73 - .79
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb bgs., c.l., works lb. .82 - —
50-lb bgs., 2,000-lb. lots and more, same basis lb. .89 - —
50-lb bgs., smaller lots, frt. alld on 100 lbs lb. 1.05 - —
Standard vis. (15,400 cps.) 50-lb. bgs., c.l., frt. alld lb. .69 - —
50-lb bgs., 2,000-lb lots and more, same basis lb. .76 - —
50-lb. bgs., smaller lots, frt. alld.
Methyl chloride, indust. cyls., frt. equald lb. .22¼- —
tanks, multi-unit, same basis. lb. .16¼- —
tanks, single unit, same basis. lb. .12¾- —
Refrigerator mfgs., cyls., dlvd lb. .48¾- —
Other consumers or service men, cyls., dlvd lb. .67¾- —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns lb. 1.55 1.80
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 - —
dms., t.c.l., dlvd lb. .16½- —
tanks, dlvd. lb. .12½- —
3-Methyl-5-ethyl pyridine, dms., c.l., works lb. .45 - —
dms., t.c.l., works lb. .45¾- —
tanks, works lb. .43 - —
Methyl formate, refd., dms lb. .35 - .40
Tech. non-ret. dms., any quantity works lb. .10 - —
tanks, works lb. .07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .26 - —
100-lb. multiwall paper bgs., t.l., min 23,000 lbs. works. lb. .27 - —
100-lb. multiwall paper bgs., t.t.l., works lb. .28 - —
Methyl heptin carbonate, bots lb. 27.25 -29.00
Methyl p-hydroxybenzoate, fib dms. lb. 1.90 2.00
Methyl ionone, standard, cns. dms. lb. 3.40 3.85
Methyl isoamyl ketone, dms., c.l., dlvd lb. .20 - —
dms., t.c.l., dlvd. lb. .20½- —
tanks, dlvd lb. .17½- —
Methoxyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl ketone, dms., c.l., dlvd lb. .17 - —
dms., t.c.l., dlvd lb. .18½- —
tanks, dlvd lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald. with Belle, W. Va lb. .31 - —
dms., smaller lots, same basis lb. .31½- —
tanks, same basis lb. .29 - —
Methyl naphthyl ketone, cryst., cns lb. 2.45 - 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate)
Methyl parathion, tech., 80% dms., frt alld E lb. .84 - —
Methyl parathion prices 2c. per lb higher in West.
Methyl roseaniline chloride, NF., 5-lb fib dms lb 6.90 - —
Methyl salicylate, dms., t.l., frt. alld lb. .60¼- —
dms., t.c.l. same basis lb. .62½- 67½
2-Methyl-5-vinyl pyridine 40-dm lots or more, f.o.b works lb 1.32 - —
5-39 dm lots, same basis lb 1.37 - —
tanks, same basis lb 1.27 - —
Methyl violet toner, molybdated, PMA bbls., dlvd E of Rockies lb 2.95 - —
Tungstated, PTMA bbls., same basis lb 4.35 - —
Methyl violet prices 1c higher W of Rockies
Methylene blue, NF, crystals, 100-lbs., frt. equald lb. 4.10 - —
Methylene chloride, tech, straight or assorted dms c.l. or t.l., dlvd lb. .12½- —
dms. t.c.l. t.l.l dlvd lb. .15¾ —
tanks, 4,000-gal. min., dlvd lb. .11¼- —
b-Methylnaphthalene, 97% m.p., dms works lb 90 —
Methylpentanediol (see Hexylene glycol)
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5)
Methylthionine chloride (see Methylene blue).
Mica, dry-grd, paint, plastic, 100 mesh, bgs, c.l., works lb. .04 —
roofing 20 to 80 mesh works lb. .03 —
wet-grd., biotite, bgs., c.l., works, frt alld E lb. .06½- —
bgs. t.c.l. ex-whse lb. .07¼- —
paint or lacq., bgs., c.l., 325 mesh works, frt alld E. lb. .08¼- —
bgs. t.c.l. ex-whse or freight alld E lb. .09 —
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld. E lb. .08 - —
bgs., t.c.l., ex-whse, or frt. alld. E lb. .08¾- —
wallpaper, bgs., c.l., works, frt. alld. E lb. .08¾- —
bgs., ex-whse. or frt. alld. E. lb. .09 - —
white, 5-10 microns, bgs., c.l., works, frt. alld. E... lb. .08¼- —
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c higher
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 - .11
laminating grades, tankcars, works lb. .11 - .12
Mineral black, bgs., works lb. .0160- .0673
Mineral oil, white, tech., 50-65 vis., non ret. dms., c.l., f.o.b. refy gal. .70 - —
non-ret, dms., t.c.l., same basis gal. .75 - —
tankcars, refy. gal. .54 - —
65-75 vis., non-ret. dms., c.l., same basis gal. .70½- —
non-ret, dms., t.c.l., same basis gal. .75½- —
tankcars, refy. gal. .54½- —
NF, 80-90% vis., non-ret. dms., c.l., same basis gal. .71 - —
non-ret, dms., t.c.l., same basis gal. .76 - —
tankcars, refy. gal. .55 - —
135-138 vis., non-ret. dms., c.l., same basis gal. .77 - —
non-ret, dms., t.c.l., same basis gal. .82 - —
tankcars, refy. gal. .61 - —
145-155 vis., non-ret. dms., c.l., same basis gal. .83 - —
non-ret, dms., t.c.l., same basis gal. .88 - —
tankcars, refy. gal. .67 - —
Mineral oil, USP, 180-190 vis., non-ret. dms., c.l., same basis, gal. .85 - —
non-ret. dms., t.c.l., same basis gal. .90 - —
tankcars, same basis gal. .69 - —
200-210 vis., non-ret. dms., c.l., f.o.b. refy gal. .875 - .90
non-ret. dms., t.c.l., same basis gal. .925 - —
tankcars, refy. gal. .69 - .715
USP, 340-350 vis., non-ret. dms., c.l., f.o.b. refy. gal. .92½- —
non-ret. dms., t.c.l. gal. .97½- —
tankcars, refy. gal. .76½- —
(For dlvd. N.Y. prices add 2c. for c.l. and 3c. for t.c.l.).
Mineral orange, American, bbls., c.l., works lb. .16 - —
bbls., t.c.l., same basis lb. .17 - —
Mineral spirits, petroleum, odorless, tankcars, New Jersey gal. .29 - —
New York gal. .305 - —
Houston, Texas gal. .25 - —
regular, tankcars, New Jersey and New York gal. .18 - —
Group 3 gal. .12875- —
Houston, Texas gal. .145 - —
140 F. flash, New York, New Jersey at terminal gal. .205 - —
Houston, Texas gal. .17 - —
Mink oil, dms. lb. 1.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works lb. 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .13½- .14
tanks, New York gal. .15½- .16
Molybdated orange, bbls. lb. .49 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo. 7.84 - —
325 mesh, ctns., works kilo. 9.13 - —
Molybdenum trioxide, purif., dms., works lb. 1.25 - —
Tech. chemical, dms., works, basis Mo content lb. 1.61 - —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.60 - —
Molybdic acid, 84%, dms., works, lb. 1.15 - 1.25
Monoallylamine, dms., c.l., dlvd lb. .965 - —
dms., t.c.l., dlvd. lb. .995 - —
tanks, dlvd. lb. .96 - —
Monobutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½- —
dms., t.c.l., same basis lb. .59 - —
tanks, same basis lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., t.c.l., works lb. .56 - —
tanks, works lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E lb. .10½- —
dms., t.c.l., same basis lb. .11½- —
tanks, same basis lb. .08¾- —
Monochlorobenzene prices in the West 1¾c. higher.
Monoethanolamine, dms., c.l., dlvd. E lb. .27½- —
dms., t.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoethylalphanaphthylamine (see n-Ethyl-a-naphthylamine).
Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E. 100% basis lb. .38½- —
Monoethylamine, 70%, aqueous solution, dms., t.c.l., dlvd. E., 100% basis lb. .40 - —
tanks, dlvd. E., 100% basis lb. .35 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine)
Monoisopropanolamine, dms., c.l., dlvd. E lb. .27½- —
dms., t.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoisopropylamine, anhyd., dms., c.l., dlvd lb. .33½- —
dms., t.c.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
Monomethylamine, anhyd., cyls., t.c.l., frt. equald., 100% basis lb. .30 - —
tanks, 100% basis lb. .26 - —
30-35% soln., dms., c.l., frt. equald. 100% basis lb. .36 - —
30-35% soln., dms., t.c.l. frt. equald, 100% basis lb. .36½- —
tanks, frt. equald., 100% basis, lb. .26 - —
40% soln. dms. frt equald., 100% basis lb. .33 - —
dms., t.c.l., frt. equald., 100% basis lb. .33½- —
tanks, frt. equald, 100% basis lb. .26 - —
Monopentaerythritol, tech. bgs., c.l., dlvd lb. .29 - —
bgs., t.c.l. lb. .30 - —
Monopotassium glutamate, dms., 1,000-lb lots, frt alld lb 3.05 - —
dms 100-lb lots same basis lb 3.25 - —
Monosodium glutamate, dms., dlvd. lb. 1.02 - 1.07
Monosodium phosphate (see sodium phosphate monobasic)
Montan wax, Calif., refd., bgs. lb. .29 - .30
Imp., crude, Bohemian, bgs. lb. .25 - .26
German, bgs lb. .25 - .26
Morphine, cns., 100-oz., f.o.b. works, oz. 12.35 - —
Morphine hydrobromide, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morpholine, dms., c.l., dlvd. E lb. .55¼- —
dms., t.c.l., dlvd. E. lb. .56¾- —
tanks, dlvd. E lb. .52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb. lots lb. 4.40 - 4.90
cns., 25-lb lots lb. 4.50 - 5.00
Ketone, fib. dms., 100-lb. lots lb. 4.60 - 5.10
cns., 25-lb. lots lb. 4.70 - 5.20
Xylol, fib. dms., 100-lb. lots lb. 1.26 - —
cns., 25-lb. lots lb. 1.40 - —
Mustard seed, Danish, yellow, bgs. lb. .09 - .09½
Montana, yellow, bgs. lb. .10½- —
Oriental, bgs. lb. .09 - —
Mustard, oil, syn., bots. lb. 1.60 - 1.85
Myristic acid, bgs. lb. .23¼- .25¾
tanks lb. .22¼- —
Myrrh gum, cs. lb. .65 - .75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).
Naphtha, VM&P, petroleum, tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Naphthalene, crude, dom., 78°, tanks, f.o.b., frt. equald lb. .06¼- .06½
Refd., indust., chipped, crushed, bgs., frt. equald lb. .14½- —
tanks, same basis lb. .11¾- —
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers,, bbls., c.l., same basis lb. .15½- —
cs. 50 lbs., c.l., same basis. lb. .15¾- —
1-lb. pkgs., c.l., same basis. lb. .18½- —
a-Naphthol, dms., frt. alld lb. 1.02 - —
b-Naphthol, tech., flake, bbls., c.l., works lb. .34 - —
bbls., t.c.l., works lb. .36 - —
Naphthol, ITR, red toner, bbls., works lb. 5.00 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid)
1-Naphthol-5-sulfonic acid (see L acid)
1-Naphthol-5-sulfonic 8-amino acid (see S acid)
2-Naphthol-6,8-disulfonic acid (see Gamma acid).
Naphthol sulfonic mixed acid (see Cleve's acid)
a-Naphthylamine, dms., frt. alld lb. .53 - —
b-Naphthylamine, tech. flake, bbls., works lb. 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid)
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).
2-Naphthylamine-1-sulfonic acid (see Tobias acid).
2-Naphthylamine-6-sulfonic acid (see Broenner's acid).
2-Naphthylamine-7-sulfonic acid (see F acid).
Naringin, fib. dms. lb. 8.50 - —
Neatsfoot oil, 15° cold test, dms lb. .29 Nom.
20° cold test, dms. lb. .28 Nom.
30° cold test, dms. lb. .27 Nom.
Neocinchophen, USP, dms., frt. adjusted lb. 7.00 8.00
Neomycin sulfate, fib dms. 1-kilo basis activity, gram. .18 - —
fib. dms. 100-999-gram lots, basis activity, gram. .25 - —
Tech., fib dms gram. .13½- —
Neopentylglycol, dms., c.l., dlvd lb. .32 - —
dms. t.c.l. same basis lb. .33 - —
Nerol, dms. lb. 4.75 - —
Neroli oil, NF, French, bots. lb. 425.00 -575.00
Tunisian, bots. lb. 400.00 — —
Nerolin, cns. lb. 2.45 - 2.85
Neville and Winther's acid, dms., frt. alld lb. 1.50 - —
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., dlvd. lb. .72 - .79
Nickel carbonate, bbls., dlvd. lb. .83 - .90
Nickel chloride, bbls., dlvd. lb. .39½- .47½
Nickel formate, bbls., ton lots, frt. alld lb. .78 - .79
Nickel metal, electro cathodes, cs., works lb. .81¼- —
Nickel nitrate, dms., frt. alld. lb. .34½- .36½
Nickel oxide, black, bbls. lb. .92 - —
Green, bbls. lb. .91 - —
Nickel sulfate, bgs., c.l., dlvd. lb. .30 - —
bgs., t.c.l., dlvd. lb. .30¼- .33
Nicotinamide, USP, 50-kilo, dms., frt. equald kilo. 5.75 - —
dms., smaller lots, same basis. kilo. 5.85 - 6.05
Nicotinamide hydrochloride, 50-kilo dms., dlvd kilo. 6.50 - 7.50
Nicotine sulfate 40%, dealers, 50-lb. dms. frt. alld lb. 1.20 - —
40% manufacturers, 500-lb. dms., frt. alld lb. 1.05 - —
Nicotinic amide, USP (see Nicotinamide).
Niger seed, bgs. lb. .10¼- —
Nikethamide, cbys. lb. 5.00 - —
Nitric acid, 36° Be., cbys., c.l., works E 100 lbs. 5.75 - —
cbys., t.c.l., works E 100 lbs. 6.05 - 6.85
38° Be., cbys. c.l., works E. 100 lbs. 6.25 - —
cbys., t.c.l., works E 100 lbs. 6.55 - 7.35
40° Be., cbys., c.l., works E 100 lbs. 6.75 - —
cbys., t.c.l., works E 100 lbs. 7.05 - 7.85
42° Be., cbys., c.l., works E. 100 lbs. 7.25 - —
cbys., t.c.l., works E 100 lbs. 7.55 - 8.35
58.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs. 4.90 - —
Nitric acid, CP, NF, consumer, cbys., extra, c.l., works lb. .18½- —
cbys. extra, t.c.l., works, lb. .20 - —
5-pint bots. extra, cs., c.l., same basis lb. .22½- —
5-pint bots. extra, cs., t.c.l., same basis lb. .24 - .25
dms. frt alld lb. .99 - —
4-Nitro-2-aminophenol, tech., paste, dms., t.c.l., works lb. .64 - —
m-Nitroaniline, cryst., dms., frt. alld lb. 1.15 - —
Paste, dms., frt. alld., 100% basis. 1.10 - —
o-Nitroaniline, flaked, dms. t.l., frt. alld lb. .49 - —
dms. t.t.l. frt alld lb. .51 - —
o-Nitroaniline orange toner, kgs. lb. 1.50 - —
p-Nitroaniline, c.l., t.l., dms., 20,000 lb. min., dlvd lb. .44½- —
dms. t.c.l. same basis lb. .46½- —
o-Nitroanisole, tech, tanks frt alld lb. .38 - —
p-Nitroanisole, tech., solid dms., frt. alld lb. .72 - —

Nitrobenzene, dbl. dist., dms., c.l., frt. alld.	lb.	.13 —
dms., t.c.l., frt. alld.	lb.	.14 • —
tanks, frt. alld.	lb.	.12 • —
p-Nitrobenzoic acid, dms., c.l., works	lb.	.63 • —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works	lb.	.39½- —
bbls., l.c.l., same basis	lb.	.42½- —
18-25 cps., bbls., c.l., same basis	lb.	.41½- —
bbls., l.c.l., same basis	lb.	.44½- —
250-400, 600-1,000 seconds, bbls., l.c.l., same basis	lb.	.44½- .47½
Spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis	lb.	.44 • —
bbls., l.c.l., same basis	lb.	.47 • —
5-6 cps., 40-60 seconds, bbls., c.l., same basis	lb.	.43 • —
bbls., l.c.l., same basis	lb.	.46 • —

Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.

o-Nitrochlorobenzene, dms., c.l., frt. alld.	lb.	.15 • —
dms., t.c.l., same basis	lb.	.16 • —
tanks, same basis	lb.	.13 • —
p-Nitrochlorobenzene, dms.	lb.	.26 • .27
2-Nitro-p-cresol, tech., dms., t.l.	lb.	.71 • —
dms., l.t.l.	lb.	.73 • —
Nitroethane, dms., c.l., dlvd. E.	lb.	.28½- —
dms., l.c.l., dlvd. E.	lb.	.30 • —
tanks, dlvd E	lb.	.26 • —

Nitroethane prices West of Rockies are 1c. higher.

Nitrogen solutions, direct application, tanks, f.o.b. works	unit-ton.	1.64 • —
Manufacturing type, same basis.	unit-ton.	1.32 • —
Nitrogen tetroxide, indust., tankcars, f.o.b. Hopewell, Va	lb.	.065 • —
Cyls., t.l., min. 5 tons, same basis	lb.	.07½- —
Cyls., l.c.l., l.t.l., same basis	lb.	.15 • —
Nitrogenous process tankage, bulk, works	unit-ton.	4.50 - 5.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works.	unit-ton.	3.50 - —

(The foregoing price is per unit NH_3, plus 50c. per unit a.p.a., bulk, f.o.b. producers' works, Chicago.)

Nitromethane, dms., t.l., dlvd. E.	lb.	.26 • —
dms., l.t.l., dlvd. E.	lb.	.27½- —

Nitromethane prices West of Rockies are 1c higher.

a-Nitronaphthalene, bbls., frt. alld.	lb.	.31 • —
o-Nitrophenol, dms., works, frt. equald	lb.	.94 • —
p-Nitrophenol, dms., c.l., frt. alld.	lb.	.45 • —
dms., t.c.l., frt. alld.	lb.	.47 • —
1-Nitropropane, dms., c.l., frt. alld. E. of Rockies	lb.	.28½- —
dms., t.c.l., same basis	lb.	.30 • —
tanks, same basis	lb.	.26 • —

1-Nitropropane prices West of Rockies are 1c. per lb. higher.

2-Nitropropane, dms., c.l., frt. alld. E. of Rockies	lb.	.18½- —
dms., t.c.l., same basis	lb.	.20 • —
tanks, same basis	lb.	.16 • —
m-Nitrotoluene, tech., dms., frt. alld.	lb.	.50 • —
o-Nitrotoluene, dms., c.l., frt. alld	lb	.15 • —
dms., t.c.l., frt. alld.	lb.	.16 • —
tanks, frt. alld.	lb.	.13 • —
p-Nitrotoluene, tech., cast, dms., c.l., works	lb.	.27½- —
dms., t.c.l., works	lb.	.28 • —
flake, dms., c.l., t.l., works	lb.	.27½- —
dms., t.c.l., works	lb.	.28 • —
m-Nitro-p-toluidine, dms.	lb.	1.25 • —
Nonylphenol, dms., c.l., frt. alld.	lb.	.22½- —
dms., t.c.l., frt. alld.	lb.	.23½- —
tanks, frt. alld.	lb.	.20 • —

Nonylphenol prices on shipments to Western States are 2c. higher.

Noscapine, cns.	oz.	8.00 • —
Nutmegs, East Indian, whole, bgs.	lb.	1.20 • —
West Indian, bgs.	lb.	.98 • .99
Nutmeg oil, USP dist., East Indian, cns.	lb.	8.00 -12.00
West Indian, cns.	lb.	9.00 -12.00
Nux vomica, bls.	lb.	.20 • —
Powd., bbls., bxs.	lb.	.20 • .23

O

Ocher (see Iron oxide yellow, nat.).		
Ocotea cymbarum oil, dms.	lb.	.44 • .47
Octane, indust., tanks, Bayonne, N.J.	gal.	.20 • —
1-Octanol, tech., dms., c.l., dlvd., Zone 1	lb.	.41½- —
dms., l.c.l., dlvd. Zone 1	lb.	.43½- .44½
tanks, dlvd. Zone 1	lb.	.37½- —
Octyl alcohol, perfumers grade, bots.	lb.	1.60 - 3.25
Octyl alcohol, tech. (see 1-Octanol, tech)		
n-Octyl-decyl alcohol blend, tanks, dlvd	lb.	.19 • —
tert-Octylamine, dms., c.l., t.l., f.o.b. works	lb.	.54½- —
dms. l.c.l., same basis	lb.	.55 • —
Octylphenol, bgs., c.l., works	lb.	.22½- —
bgs., l.c.l., works	lb.	.23 • —
tanks, works	lb.	.21½- —

Octylphenol in dms., 11c. higher.

OILS
Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liquid, dms.	lb.	.16 • .16¼
tanks	lb.	.14¼- .14½
Oleic acid, dbl.-dist. (white), dms.	lb.	.18½- .21
tanks	lb.	.16 • —
S. D., dms.	lb.	.17½- .20
tanks	lb.	.15 • —
Oleum (see Sulfuric acid, fuming).		
Olibanum gum, siftings, cs.	lb.	.15 • .20
Tears, cs.	lb.	.22 • .30
Olibanum oil, bots.	lb.	5.00 • 7.65
Extra fine, bots	lb.	8.00 • 9.50
Olive oil, edible, dms., spot, ex whse.	gal.	2.35 • 2.40
Olivine, crude, works	ton.	12.00 • —
20 mesh, works	ton.	15.00 • —
100 mesh works	ton.	20.00 • —
Opium, USP, cns., 25-lbs., f.o.b. works	oz.	19.20 • —
gran., cns., 50 lbs., same basis.	oz.	21.65 • —
powd., cns., 50 lbs., same basis.	oz.	21.65 • —
Orange oil, expressed, USP, Calif., cns., dms	lb.	.70 • .90
Calif., sweet., cns., dms.	lb.	.60 • —
Florida, cns., dms.	lb.	.40 • .45
Messina, cns.	lb.	3.25 • 3.60
West Indian, bitter, cns., dms.	lb.	2.50 • 3.50
Orange peel, bitter, Haitian, bls.	lb.	.18 • .20
Sweet	lb.	.28 • .30

ORANGE PIGMENTS
Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Origanum oil, Spanish, cns.	lb.	1.80 - 2.30
Orris root, Florentine, bls.	lb.	.55 • —
powd., bbls., bxs.	lb.	.65 • —
Verona, bls.	lb.	.35 • —
powd., bbls., bxs.	lb.	.45 • —
Orthoanisidine (see o-Anisidine).		
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).		
Orthochloroaniline (see o-Chloroaniline).		
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).		
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).		
Orthochlorophenol (see o-Chlorophenol).		
Orthocresol (see o-Cresol).		
Orthocresotinic acid (see 2,3-Creosotic acid).		
Orthodichlorobenzene (see o-Dichlorobenzene).		
Orthonitroaniline (see o-Nitroaniline).		
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).		
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).		
Orthonitrophenol (see o-Nitrophenol).		
Orthonitrotoluene (see o-Nitrotoluene).		
Orthophenetidine (see o-Phenetidine).		
Orthophenylphenol (see o-Phenyl phenol).		
Ortho-tertiary amylphenol (see o-tert-Amylphenol).		
Orthotolidine (see o-Tolidine base).		
Orthotoluidine (see o-Toluidine).		
Ouabain, USP, bots.	gram.	3.00 - 4.00
Ouricury, wax, crude, bgs.	lb.	.50 • .52
Refd., pure, bgs.	lb.	.54 • .56
Oxalic acid, bgs., c.l., works	lb.	.18 • —
bgs., 10,000-lb. lots, works.	lb.	.19 • —
bgs., smaller lots, works.	lb.	.20½- —
Oxalic acid in drums is priced ½c. per lb. higher.		
b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld.	lb.	.912 • —
Dyestuff manufacture, dms., same basis.	lb.	1.03 - 1.14
Oxyquinolin sulfate, cns., 100-lb. lots, works.	lb.	4.75 - 5.00
cns., smaller lots, works.	lb.	4.92 - 5.17

P

Palm oil, clarif., dms.	lb.	.14¾- .15¼
tanks, New York	lb.	.12 • —
Palm oil acid, double dist. dms.	lb.	.16½- .19
tanks	lb.	.14 • —
single dist., dms.	lb.	.16 • .18½
tanks	lb.	.13½- —
Palmarosa oil, cns.	lb.	5.25 - 6.50
Papain, powd., bots.	lb.	3.25 -10.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots.	oz.	5.00 • —
cns., smaller lots	oz.	5.05 - 5.20
Papaverine sulfate, nat. or syn., USP, cns.	oz.	7.10 - 7.35
Paprika, Bulgarian, bgs.	lb.	.32 • —
Hungarian, bgs.	lb.	.33 • —
Spanish, bgs.	lb.	.33 • .38
Para-aminobenzoic acid (see p-Aminobenzoic acid).		
Parachlorobenzoic acid (see p-Chlorobenzoic acid).		
Paramethylphenylcinchonic acid (see Neocinchophen).		
Paranitrobenzoic acid (see p-Nitrobenzoic acid).		
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).		
Para-aminophenol (see p-Aminophenol).		
Parachlorophenol (see p-Chlorophenol).		
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).		
Para-anisidin (see p-Ansidine).		
Parachloraniline (see p-Chloraniline).		
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).		
Paracresol (see p-Cresol).		
Paradibromobenzene (see p-Dibromobenzene).		
Paradichlorobenzene (see p-Dichlorobenzene).		
Para toner, red, bbls.	lb.	1.30 • —
Chlorinated, kgs.	lb.	1.41 • —
Paraffin, crude, scale, white, 123°-127°F., ASTM. tanks, refy.	lb.	.0655- .0660
Fully refd., 122°-124°F., ASTM,	lb.	.0763- —
125°-127°F., ASTM, tanks, refy.	lb.	.0765- —
130°-132°F., ASTM, tanks, refy.	lb.	.0765- —
132°-134° F., ASTM, tanks, refy.		
135°-137°F., ASTM, tanks, refy.	lb.	.0765- —

AMP temperatures are an arbitrary 3°F. higher than ASTM.

HARDWORKING JEFFERSON CHEMICALS

POLYETHERS and CATALYSTS

SPECIFICATIONS

		PPG[1] 400	PPG 2000	Triol G-400	Triol G-700	Triol G-1500	Triol G-3000	Triol G-3250	Triol G-4000
Acid No., mg. KOH/g.	max.	—	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Appearance		Clear and substantially free of foreign matter							
Ash, wt. %	max.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Color, Pt-Co	max.	75	50	100	100	100	100	100	100
Gel test, flow time, sec.	max.	—	10	—	—	—	10	10	10
Hydroxyl No., mg. KOH/g.	min.	—	54.5	375	229	107	53.4	50.5	39
	max.	—	57.5	450	253	118	59.0	53.5	43
pH in 10:1 methanol-water solvent	min.	5.0	5.0	5.0	5.0	3.5[2]	5.0	5.0	5.0
	max.	7.0	7.0	7.0	7.0	5.5	7.0	7.0	7.0
Potassium, ppm.	max.	—	10	50	10	10	10	10	10
Specific gravity, 20/20°C.	min.	—	1.003	—	—	—	—	—	—
	max.	—	1.006	—	—	—	—	—	—
Total unsaturation, meq/g.	max.	—	0.04	0.03	0.03	0.03	0.04	0.04	0.075
Viscosity, SUS at 100°F.	min.	150	—	—	—	—	—	—	—
	max.	175	—	—	—	—	—	—	—
Volatility, wt. %	max.	—	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Water at shipment, wt. %	max.	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1

[1]A urethane grade of Polypropylene Glycol 400 is available upon request.
[2]10:6 isopropanol-water solvent used.

	N-METHYLMORPHOLINE	N-ETHYLMORPHOLINE	N,N'-DIMETHYLPIPERAZINE
Appearance	Clear and substantially free of foreign matter		
Boiling range, ASTM, °C.			
IBP:	112.0 min.	133.0 min.	125.0 min.
DP:	118.0 max.	141.0 max.	135.0 max.
Color, Pt-Co scale	15 max.	15 max.	75 max.
Color after 24 hours, 4 parts sample, 6 parts water, Pt-Co scale	35 max.	—	—
Purity, wt. %	99.0 min.	99.0 min.	Equivalent weight. 57 min.
Specific gravity, 20/20°C.	0.917 min.	0.912 min.	59 max.
	0.922 max.	0.916 max.	—
Water, wt. %	0.30 max.	0.2 max.	0.5 max.
Other amines, wt. %	—	—	0.5 max.

SHIPPING AND HANDLING

Polyols are available in tank cars, tank wagons, and nonreturnable steel drums of 460 pounds net weight. N-Methylmorpholine and N-Ethylmorpholine are available in 55-gal. steel drums, 420 pounds net weight, and 5-gal. steel drums, 35 pounds net weight. N,N'-Dimethylpiperazine in nonreturnable steel drums of 385 pounds net weight. Only N-Methylmorpholine requires a red label; all others: no label. Handling and storage is in most cases a straightforward operation.

TECHNICAL INFORMATION

We will be pleased to send samples of these polyethers and catalysts for your evaluation or supply detailed technical information . . . write or call Jefferson Chemical Company, Inc., 1121 Walker Avenue, P. O. Box 303, Houston 1, Texas.

HOUSTON • NEW YORK • CHICAGO • CLEVELAND
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JEFFERSON CHEMICALS

007

Paraffin Oil—Propylene Glycol

Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy. gal. .17½- —
Paraffin wax (see Paraffin)
Paraformaldehyde 91% flake, bgs., c.l., frt. alld lb. .10 - —
bgs., l.c.l. frt. alld lb. .12 - .13
91% powd., bgs., c.l. ex whse. lb. .1715- —
bgs., l.c.l., ex whse lb. .1865- —
USP-X, fib. dms., c.l. f.o.b., works lb. .19 - —
fib. dms., 1,000-lb. lots, same basis lb. .20 - —
fib. dms., smaller lots, same basis lb. .21½- —
Paraldehyde tech., 98%, 55-gal. dms., t.l., dlvd. E lb. .14 - —
55-gal. dms., l.c.l., dlvd. E lb. .15½- —
tanks, dlvd. E lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene)
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine)
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol)
Para-tertiary-amylphenol (see p-tert-Amylphenol)
Para-tertiary butylphenol (see p-tert-Butylphenol)
Parathion ethyl dms. frt alld lb. .84 —
Parathion prices 2c per lb higher in West
Paratoluenesulfonamide (see p-Toluenesulfonamide)
Passion flower herb bls lb .35 .40
Patchouli oil, imp., cns. lb. 5.00 - 5.60
Peach kernel oil USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd E of Rockies lb 1.00 —
Peacock blue price 1c higher W of Rockies.
Peanut meal, old process, 45% bgs., f.o.b. mills ton.62.00 - —
solvent, same basis ton.60.00 - —
Peanut oil crude tanks, f.o.b. mills. lb. .17½- —
Refd., dms. lb. .22¾- —
tanks lb. .20¾- —
Pectin, don., NF, citrus, powd., 100 kilos, f.o.b. shipt. pt. k'lo. 4.52 —
Pelargonic acid, dms., c.l., dlvd. E lb. .27½- —
ton lots, same basis lb. .28½- —
tanks, same basis lb. .25 - —
Penicillin, potassium, cryst., bulk, 1,000,000 units. .018 - —
Penicillin, procaine, cryst., bulk, 1,000,000 units. .020 - —
Pennyroyal oil USP imported, cns. lb. 2.35 - 2.80
Pentachlorophenol, 50-lb. bgs., c.l., t.l., works, frt. equald lb. .21 - —
bgs., less than ton-lots, same basis, lb .29 - —
bgs., c.l., t.l., 2,000 lb. minimum, same basis lb. .22½- —
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol tech., bgs., c.l., dlvd lb. .29 - —
bgs., l.c.l., dlvd lb. .30 - —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust. tanks, f.ex refy gal. .14 - —
Pentobarbital, dms. 100 lbs. or more lb 6.00 —
Pepper, black, Malabar, bgs. lb. .45½- —
Lampong, bgs. lb. .45 - —
Red, Funtuas, bgs. lb. .30 - .31
Japanese, Hontoka, bgs. lb. .40 - —
Santaka, bgs. lb. .30 - .31
Sudanese, bgs. lb. .52 - .56
White, Muntok, bgs lb. .57 - —
Peppermint leaves, dom., USP, bls., dms lb. No stocks.
imp., USP dms. lb. .85 90
Peppermint oil, nat., dms lb. 4.00 - 4.40
Redist., USP, dms lb. 4.25 - 4.65
Perchloroethylene dms. c.l., or t.l., dlvd lb. .13½- —
dms., l.c.l., dlvd. lb. .15¼- —
tanks, dlvd lb. .11¾- —
tanktruck 1,000 gal min dlvd lb .12¼- —
Peri acid, dry bbls. frt alld lb. 1.60 —
Paste, bbls. frt alld lb 1.55 —
Peru balsam, dms lb 1.15 - 1.50
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil South American cns. dms lb. 2.45 - —
Petrolatum, NF, cream, dms., c.l., refy lb. .085 08625
dms., l.c.l., dlvd lb. .11125-11250
tanks, refy lb. .0625- .06375
NF, extra amber, dms., c.l., refy. lb. .07625- —
dms., l.c.l., dlvd lb. .1025- —
tanks, refy lb. .08375- —
NF, soft yellow, dms., c.l., refy lb. .07625- —
dms., l.c.l., dlvd. lb. .1025- —
tanks, refy. lb. .08375- —
USP, lily white, dms., c.l., refy lb .09125-.09675
dms., l.c.l., dlvd lb. .1175- .1225
tanks, refy lb. .0 875- —
USP, snow white, dms., c.l., refy. .09625- —
dms., l.c.l., dlvd. lb. .1225- —
tanks, refy. lb. .07375- —
Full tankwagons of petrolatum are ¼c. more per lb. than tankcars.
Petroleum pitch (see Asphalt, petroleum).

PETROLEUM PRODUCTS

Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works. lb. .16½- .18¾
non-ret. dms., l.c.l., works lb. .17½ .19
tanks, works lb. .14½- .17
50-55% sulfuric content, non-ret. dms., c.l., works lb. .16 - —
non-ret. dms., l.c.l., works lb. .17 - —
tanks, works lb. .13 - —
o-Phenetidine, dms., c.l., frt. alld. E lb 91 - —
dms., l.c.l., same basis lb. .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb 1.05 - —
dms, same basis lb 1.08 - —
Phenobarbital, USP, dms., 100-lbs., frt. alld lb. 2.85 - 3.25
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld E. of Rockies lb. .16½- —
non-ret. dms., l.c.l., same basis. lb. .17½- —
tanks, same basis lb. .14½- —
82-84% (cresol 16-18%), non-ret. dms., c.l., same basis lb. .16¼- —
non-ret. dms., l.c.l., same basis. lb. .17¼- —
tanks, same basis ¾lb. .14¼- —
89°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .17¾- —
non-ret. dms., l.c.l. lb. .18¾- —
tanks, same basis lb. .15¾- —
Phenol, USP, syn., dms., c.l., t.l., frt. alld. lb. .18¼- —
dms., l.c.l., same basis lb. .20¼- —
tanks, same basis lb. .16¼- —
Phenolphthalein, USP or yellow, 250-lb. dm., 2,000 lbs., frt. alld. lb. 1.30 - —
250-lb. dm., same basis lb. 1.35 - —
Phenothiazine drench, fib. dms., t.l., dlvd lb. .46 - —
fib. dms., ton lots, dlvd lb. .49 - —
NF, fib. dms., t.l., dlvd lb. .45 - —
fib. dms., ton lots, dlvd lb. .48 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Phenyl salicylate (see Salol)
Phenylacetaldehyde, soln., 50%, bots lb. 2.15 2.35
100%, bots. lb 3.80 4.00
Phenylacetic acid, pure, cryst., cns lb. 1.25 - 1.75
dl-Phenylalanine, dms., 1-kilo kilo.65.00 - —
l-Phenyl-3-carbethoxy pyrazolone-5, fib dms., 200-lb lots, dlvd E lb. 3.45 - —
fib dms., smaller lots, dlvd E lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd E lb. .50 - —
dms., l.c.l., dlvd. E lb. .51½- —
tanks, dlvd. E lb. .47½- —
m-Phenylenediamine, dms., c.l., t.l., frt. alld lb. 1.08 - —
l.c.l., l.t.l., same basis lb. 1.10 - —
o-Phenylenediamine, comi., fib. dms, 100 to 1,000 lbs., works. lb. 1.70 - 1.80
p-Phenylenediamine, tech., dms, works lb. 1.55 - —
Phenylethanolamine, dms., c.l., works lb. .75½- —
dms., l.c.l., same basis lb. 76¼- —
Phenylethyl acetate bots. lb. 1.25 1.40
2-Phenylethyl alcohol, extra, dms. lb 1.14 1.50
Standard, dms lb. 1.10 1.60
b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld lb. 1.50 - —
dms, smaller lots, frt alld lb 1.70 1.85
Phenylethylphenyl acetate nots lb 4.00 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine 97%, 450-lb dms. lb 1.45 - —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd E. lb. 1.80 - —
fib dms., smaller lots, dlvd E lb. 2.10 - —
o-Phenylphenol dms., l.c.l. works. lb. .48 .50
p-Phenylphenol, bgs., c.l., works lb. .38½- —
bgs., l.c.l., works lb. .43 —
Philippine copal gum, pale, chips, bgs lb. .23¼- .27
nubs, bgs. lb. .33¼ .37
seeds, bgs. lb. .20 Nom.
sorts, bgs. lb. .20 .24
Phlorogluc'nol, comi., fib. dms., works lb 6.40 - —
CP, bots., works lb 17 75 - —
Tech., fib dms. works lb 10 45 - —
Phloxin red toner (see Eosin red toner)
Phosgene, ref. cyls. works lb 15½- —
Phosphate defluorinated (see under D)
Phosphate rock, Curacao, Atlantic ports New Orleans ton.46.50 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines, short-ton. 4.989 5.398
68-70%, b.p.l., bulk, c.l., same basis short-ton. 5.849 5.858
70-72%, b.p.l. bulk, c.l., same basis short-ton. 6.429 6.438
74-75%, b.p.l., bulk, c.l., same basis short-ton. 7.329 - 7.338
76-77%, b.p.l., c.l., bulk, same basis short-ton 8.219 8.228
Above Florida prices are based on fuel oil at 2.52 per bbl and labor at $1.64
Phosphoric acid, food grade, 75%, chys., c.l., works, E., frt. equald 100 lbs. 7.00 - —
chys., l.c.l., same basis 100 lbs. 7.25 7.75
tanks, t.w., works 100 lbs 5.60 —
80% chys., c.l. frt equald 100 lbs. 7.85 —
chys., l.c.l., works 100 lbs 8.10 9.35
tanks, t.w., works 100 lbs 6.00 —
NF 85%, chys., c.l., works. 100 lbs 8.50 —
chys., l.c.l., works 100 lbs 8.75 9.00
tanks, t.w., works 100 lbs 6.65 —
Phosphorus, amorph., red, dms., t.l., works lb. .55 - —
dms., smaller lots, works lb. .56 - .57
white (yellow), solid, dms., c.l., works, frt. equald lb. .20 .20½
dms., l.c.l., works, frt. equald lb. .21¼- —
tanks, works, frt. equald. lb. .19 - —
Phosphorus oxychloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works, frt. equald lb. .12¼- —
Phosphorus pentasulfide, powd., dms., c.l., works lb. .13½- —
dms, l.c.l. works lb. .14½- .15½
Solid, dms., c.l. works lb. .11½- —
dms, l.c.l. works lb. .12½- .13½
Phosphorus pentoxide, dms., c.l., works lb. .1375- .1475
dms., l.c.l., works lb. .1475- .1675
Phosphorus sesquisulfide, dms., cs., c.l., works lb. .38 - —
dms, l.c.l. works lb. .39 - .40
Phosphorus trichloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works lb. .12½- —
Phthalic anhydride, bgs., c.l., works, frt. equald lb. .18 - —
bgs., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .17½- —
Phthalimide, 97-98%, dms., frt. alld lb. .65 - —
Phthalocyanine blue, full strength, bbls., dlvd. E. of Rockies. lb 2.90 - —
Resinated, bbls., same basis lb 2.75 - —
Water dispersable, bbls., same basis lb 1.52 —
Phthalocyanine blue prices 1c. higher W of Rockies.
Phthalocyanine green toner, bbls., works lb 3.35 - —
Resinated, bbls. lb 3.00 - —
Water dispersable, bbls. lb 1.71 — —
Phthalocyanine green prices 1c. higher W of Rockies
Phthalylsulfacetamide, fib. dms., 1-000-lb. lots or more lb 5.00 - —
NF fib. dms. lb 5.20 - —
a-Picoline, dms. c.l., works, frt. equald lb. .46 .48
dms., l.c.l., same basis lb. .46½- .49
tanks, same basis lb. .43 - .46
b-Picoline, 98% dms., t.l., works. lb. 1.05 - —
dms., l.c.l., same basis lb 1.15 - —
tanks, same basis lb. .95 - —
b,g-Picoline, 5°C. dms., c.l., works. lb. .32½- —
dms, l.c.l., works lb. .33 - —
g-Picoline, dms., f.o.b., works lb 1.60 - —
tanks, t.l. same basis lb 1.50 - —
Picric acid, NF bbls. lb. .85 - —
Tech., bbls. lb. .50 - —
Pigment green B, kgs. lb. 1.55 - —
Pilocarpine hydrochloride, USP, bots oz. 4.75 - 5.25
Pilocarpine nitrate, USP, bots., vials, oz. 4.65 - 5.15
Pimento, Jamaican, bgs. lb. .69 - .72
Mexican, bgs. lb. .61 - —
Pimento berry oil, NF, dms. lb. 3.75 - 9.25
Pimento leaf oil, crude, cns. lb. 2.50 - 2.60
Pine oil, dest dist., dms., l.c.l. works lb. .15 - —
dms., l.c.l. ex whse. New York. lb. .173 - —
Steam-dist., dms., ex whse., New York lb. .185 - —
dms., dlvd. lb. .188 - —
Pineneedle oil, Siberian (see Abies Siberica oil).
Pink root, bls. lb. 2.25 - —
Piperazine, anhyd., dms., c.l., frt. alld. E lb. 1.80 - —
dms., l.c.l., frt. alld. E lb. 1.85 - —
Piperazine citrate, 36% dms., 1,000 lbs. or more, frt. alld lb. 1.33 - —
Piperazine dihydrochloride, 51%, dms., 1,000 lbs or more, frt. alld lb. 1.29 - —
Piperazine hexahydrate, 44%, dms., 1,000 lbs. or more, frt. alld lb. .90 - —
dms., 200-900 lbs., frt. alld lb. .93 - —
Piperazine phosphate, 42%, dms., 1,000 lbs or more, frt. alld lb. 1.11 - —
Piperidine, dist., 98% min., 5 dms. or more, l.c.l., t.l.l., f.o.b. works lb. 2.65 - —
1-4 dms., same basis lb 2.70 - —
dms., c.l., t.l., frt. equald lb. 2.55 - —
Piperonyl butoxide dms. dlvd. E lb. 4.50 5.05

PITCHES

Pitch quotations are listed individually. For example, prices on Pitch, coaltar, may be found in the C's under Coaltar pitch.

Platinum metal, works oz.81.00 -85.00
Pleurisy root, bls. lb. .45 .50
Podophyllum resin, NF, dms. lb.12.50 -15.50
Poke root, bls. lb. .19 - .22
Polymyxin, bots., bulk., 50 billion units or more 1,000,000 units. .52 - —
bulk, bots., 25-50 billion units, 1,000,000 units. .54 - —
bulk, bots., 1-25 billion units, 1,000,000 units. .56 - —
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works lb. .42 - —
dms., 10,000-20,000-lb. lots, works. lb. .44 - —
dms. smaller lots, works lb. .47 - .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb lots, works lb. .42 - —
dms., 10,000-20,000-lb. lots, works lb. .44 - —
dms., smaller lots, works lb. .47 - .49
Pontianak copal gum, chips, bgs. lb. .23½- .26
Nubs, bgs. lb. .38 44
Poppy seed, Argentine, bgs. lb. No stocks.
Dutch, bgs. lb. .13 - —
Danish, bgs. lb. .12 - —
Polish, bgs. lb. .12½- —
Turkish, bgs. lb. .11 - —
Potash caustic, liq., 45% basis, dms., c.l., works 100 lbs. 4.25 - —
dms., l.c.l., same basis. 100 lbs. 5.25 - —
tanks, same basis 100 lbs 3 70 - —
reg., flake, 88-92% dms. c.l., same basis 100 lbs. 9.55 - —
dms., l.c.l., same basis. 100 lbs.11.05 - —
Potash, caustic, solid, 88-92% dms., c.l., works 100 lbs. 9.10 - —
dms. l.c.l., works 100 lbs.10.60 - —
Potassium acetate, NF, 200-lb. dm., f.o.b. works, E lb. .31 - —
Potassium bicarbonate, USP, gran., dms lb. .22 - —
powd., dms lb. .24 - —
Potassium bichromate, gran., bgs., c.l., t.l., works lb. .18 - —
bgs., l.c.l., works lb. .18½- .19¾
Potassium bichromate in dms. ¾c. higher.
Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald lb. .37 - —
100-lb. bgs., 5,000 lbs. 1 shipt., same basis lb. .38 - —
100-lb. bgs. smaller lots, same basis lb. .40 - —
Potassium borohydride, powd., dms., works lb.16.00 -22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb lots
Potassium bromate, 200-lb. dms., c.l., frt alld lb. .49 - —
Potassium bromide, USP, gran., bbls., kgs lb. .39 - .40
Potassium carbonate, dom., NF, gran., bbls., dms lb. .22 - .24
Dom. tech. powd., bbls., dms lb. .21 - .22
Dom., calcinated, bgs., c.l. works. 100 lbs. 8.50 - —
bgs., l.c.l. same basis 100 lbs. 9.55 - —
Dom. hydrated 83-85%, bgs., c.l., works 100 lbs. 7.10 - —
bgs. l.c.l. works 100 lbs. 8.15 - —
Potassium chlorate cryst. dms., c.l., works lb. .12¼- —
dms., l.c.l., works lb. .13½- .14½
Powd., dms., c.l., works lb. .12¾- —
dms. l.c.l., works lb. .14 - .15
works lb. .12¼- —
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works lb. .16¾- —
NF, gran., 25-lb metal dms lb. .36 - —
NF powd., dms., 2,000 lbs. or more works lb. .17¼- —
Potassium chloride indust., 99.9% KCL, bulk, c.l., works ton.29.00 - —
bgs., c.l., works ton.?4.00 - —
99.3% KCL, bulk, c.l., works ton.28.00 - —
bgs., c.l., works lb.33.00 - —
USP, cryst., dms lb.33.00 - —
USP, gran., dms. lb. .21 - .23
USP, powd., dms. lb. .24 - .26
Potassium chloride, agricultural (see Potassium muriate).
Potassium chromate, tech., dms., works lb. .50 - .51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E lb. .43 - —
powd. 250-lb dms. same basis. lb. .46 - —
Potassium cyanide, dms., 20,000-lb. lots or more, dlvd. E lb. .42½- —
dms., 5,000-19,999-lb. lots, works lb. .43 - —
dms., 2,000-4,999-lb. lots lb. .43½- —
dms., 1,999-lb. lots or less lb. .44½- .46½
Potassium dichromate (see Potassium bichromate).
Potassium ferricyanide, dms., ton lots, works lb. .50 - —
dms. smaller lots works lb. .65 - —
Potassium ferrocyanide, dms., ton lots lb. .24½- —
dms. smaller lots lb. .29 - —
Potassium fluoborate fib dms., c.l., works lb. .30 - —
fib dms., l.c.l., works lb. .31 - —
Potassium fluoride, dms., works lb. .36 - .37
Potassium gluconate, 100-lb dm., f.o.b works E lb. 1.67 - —
Potassium guaiacol sulfonate NF, dms lb 2.10 2 30
Potassium hydroxide, tech. (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb dms., 1 to 100-dm. lots lb. .83½- .88
Potassium hypophosphite, NF, fib. dms., 1,000-lb. lots lb. 1.38 - —
Potassium iodide, USP cryst., gran., 250-lb. dm., f.o.b. works lb. 1.55 - —
Potassium manure salt, min. 20% K_2O, bulk, c.l., works, unit-ton. .17 - .1765
Potassium metabisulfite, gran., dms., lb. .16 - —
Powd., dms lb. .27 - —
Potassium muriate, standard, bulk, c.l., works, unit-ton. .36 - .38
bagged 60% minimum K_2O, same basis ton.26.60 -27.80
Potassium muriate, gran., bulk, c.l., works, unit-ton. .39 - .41
bagged, 60% minimum K_2O, same basis ton.28.40 -29.60
Inside prices apply to material contracted for prior to July 1, 1961.
Outside prices apply to material contracted for after that date but also for delivery during the current month.
Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs.17.00 - —
bbls., smaller lots 100 lbs.18.00 -19.00
gran., bgs., 20-ton lots 100 lbs. 9.50 —
bgs., smaller lots 100 lbs.11.00 -12.00
powd., bgs., 20-ton lots 100 lbs.10.50 —
bgs., smaller lots 100 lbs.12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm. f.o.b works E lb. .32 - —
Potassium pentaborate, gran., dms., c.l. works ton.219.50 - —
dms., ton lots, ex whse 100 lbs.17.48 - —
dms., smaller lots, ex whse 100 lbs.18.73 - —
Powdered potassium pentaborate $10 per ton higher.
Potassium perchlorate, dms., c.l., works lb. .18½- —
dms., l.c.l., works lb. .19 - .20
Potassium permanganate, comi., kgs., works lb. .25 - .33
USP dms., works lb. .29 - .35
Potassium pyrophosphate, tetrabasic, dms., works lb. .1475- .1577
Potassium prussiate red (see Potassium ferrocyanide)
Potassium prussiate yellow (see Potassium ferro-cyanide).
Potassium silicate, electrical grade, 30° Be. 1:2.0, dms., c.l., works 100 lbs. 6.50 - —
dms., l.c.l., 5 dm. lots or more, works 100 lbs. 7.25 - 7.65
tanks, works 100 lbs. 6.15 - —
40.5° Be 1:2.1, dms., c.l., works. 100 lbs. 5.95 - —
dms., l.c.l., 5 dm. lots or more, works 100 lbs. 6.70 - —
tanks, works 100 lbs. 5.60 - —
Glass grade, bgs., c.l., works 100 lbs. 17.30 -18.00
bgs., l.c.l., works 100 lbs.17.80 - —
Soln., 29° Be. 1:2.5, dms., c.l., works 100 lbs. 4.95 - —
dms., l.c.l., 5-dm. lots or more, works 100 lbs. 5.70 - —
tanks, works 100 lbs 4.60 - —
Potassium silicofluoride, bgs., works. lb. .09½- .10
Potassium silicofluoride in drums, 0.4c. per lb higher.
Potassium stannate, dms. frt. alld. lb. .86¢ - .93¢
Potassium sulfate, min. 50% K_2O, agricultural, bulk, c.l., works unit-ton. .70½- .72½
Inside price applies to tonnage contracted for prior to July 1, 1961.
Outside price applies to tonnage contracted for after that date but also for delivery during the current month.
Potassium sulfate, NF VII, cryst., dms., lb. .31 - .33
NF VII, gran., 400-lb. dm. lb. .18 - —
NF VII, powd., 400-lb dm. lb. .17 - —
Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate)
Potassium thiocyanate, NF, cryst., dms., works lb. .96 - .98
Tech., dms., works lb. .77 - .79
Potassium titanate, cns., c.l., works. lb. .16¼- —
ctns., 5-ton lots, works lb. .16½- —
ctns., 1-ton lots or less, works lb. .16¾- —
Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price. ton.13.45 - —
bulk, works, July forward ton.14.00 - —
Potassium-sodium tartrate, NF gran. or powd., 250-lb. dms., c.l., works E lb. .42½- —
250-lb. dms., 5,000-lb. lots, same basis lb. .43 - —
250-lb. dms., same basis lb. .43¼- —
Potassium-titanium fluoride, fib. dms., works lb. .39 - .40
Potassium-zirconium flouride, fib. dms., c.l., works lb. .50 - —
fib dms., t.c.l., works lb. .52½- .55
Pregnenolone, bots. gram. No prices.
Pregnenolone acetate, bots. gram. No prices.
Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld. lb. 2.10 - 2.25
Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt. alld lb 2.40 - —
dms., 500 lbs lb 2.45 - —
dms., 100 lbs lb 2.50 — —
Progesterone, USP, bots gram No prices.
Pregnenolone acetate, bots gram. No prices.
Propenyl guaethol, dms lb.24.30 -27.00
b-Propriolactone, tech., dms., c.l., f.o.b. works lb. .47½- —
dms., t.c.l., t.t.l., same basis lb. .48½- —
tanks, same basis lb. .45 - —
Propionic acid, syn., pure, dms., c.l., dlvd lb. .23¼- —
dms., t.c.l., dlvd. lb. .24¾- —
tanks, dlvd lb. .20¾- —
n-Propyl acetate, dms., c.l., dlvd. lb. .14¾- —
dms., t.c.l., dlvd lb. .16¼- —
tanks, dlvd lb. .12¼- —
n-Propyl alcohol, dms., c.l., dlvd lb. .14 - .15
dms., t.c.l., dlvd lb. .15½- .16½
tanks, dlvd lb. .11½- .12½
n-Propyl gallate, dms., 100 to 2,000-lb lots, works lb 3.90 4.40
n-Propyl-p-hydroxybenzoate, USP, dms lb. 2.30 - 2.40
Propyl thiouracil, bots., 50 kilo lots or more kilo.55.00 —
bots., smaller lots kilo.55.10 -85.30
n-Propylamine, dms., c.l., dlvd lb 1.24 —
dms., t.c.l., same basis lb. 1.255 - —
n-Propylene dichloride, consumers', dms., c.l., dlvd. E lb. .0845- —
dms., t.c.l., same basis lb. .0995- —
tanks, same basis lb .07 - —
Propylene dichloride prices in West 1c. higher, same basis
Propylene glycol, indust., dms., c.l., dlvd. E lb. .15 - —
dms., t.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12½- —
USP dms., c.l., dlvd E lb. .17 - —
dms., t.c.l., same basis lb. .18¾- —
tanks, same basis lb. .14½- —

Propylene glycol methyl ether, dms., c.l., dlvd lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .18½ - —
Propylene oxide, dms., c.l., dlvd. E. lb. .17 - —
dms., l.c.l., dlvd. E lb. .18½ - —
tanks, dlvd. E lb. .14½ - —
Psyllium seed, black, bgs lb. .42 - .45
Blonde, bgs. lb. .18 - .20
Husks, bgs. lb. .45 - .48
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb. .03¾- .04¼
bgs., smaller lots lb. .03¾- —
Pumice, imp., Italian, silk-screen, coarse, bgs., ton lots lb. .06½- —
fine, bgs, ton lots lb. .04 - —
sun dried, coarse, bgs. ton 60.00 - —
fine, bgs. ton 60.00 - 70.00
Pumpkin seed, bgs lb. .25 - .26
Pyrethrins, syn. (see Allethrin).
Pyrethrum flowers, fine grd. 0.9% pyrethrins, bgs., ton, works lb. .50 - —
Powd., 1.3% pyrethrins, bgs., ton, works lb. .71 - —
Pyrethrum liquid, 20-1 basis (2 grams pyrethrins per 100cc odorless base), dms., works, gal. 9.60 - 9.80
100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal. 45.90 - 46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb. 11.00 - 11.35
purif, 20%, dms., works lb. 11.00 - 11.35
Pyridine, denat., dms. c.l., works and frt. equald gal. 2.77 - —
dms., l.c.l., same basis gal. 2.80 - —
Refd., 2° non-ret dms., c.l., same basis lb. .75½- —
dms., l.c.l., same basis lb. .76 - .76½
tanks, same basis lb. .71 - —
Potassium persulfate, dms., c.l., works lb. .17½- —
dms., l.c.l., works lb. .18 - .21
Pyridoxine hydrochloride, USP, dms., f.o.b. works kilo. 90.00 - —
Pyrites, Canadian, 48-50% S, mines, long-ton 4.50 - 5.00
Pyrocatechol (see Catechol).
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls., 100-lbs., f.o.b., works lb 3.50 - —
Pyrogallol, NF, 100-lb. dms lb. 3.50 - —
Pyroxylin, USP, bots lb 9.50 - —

Q

Quassia chips lb. .10 - —
Quicksilver (see Mercury metal).
Quince seed, bgs lb. 1.55 - 1.75
Quinidine sulfate, USP, 1,000-oz. dm oz. .78½- —
Quinine, NF, 1,000-oz. dm. oz. .3750- —
Quinine bisulfate USP, 1,000-oz. dm. oz. .28 - —
Quinine hydrochloride, 1,000-oz. dm. oz. .3650- —
Quinine sulfate USP, 1,000-oz. dm. oz. .3150- —
Quinoline, dms., c.l., frt. equald lb. .50¾- —
dms., l.c.l., same basis lb. .51¼- —
tanks, same basis lb. .50 - —

R

R salt paste, dms., c.l., t.l., frt. alld., 100% basis lb. .98 - —
Powd., dms., c.l., t.l., frt. alld, 100% basis lb. 1.08 - —
Rapeseed oil, dms. lb. .19 - .19½
tanks lb. .17 - —
Rare earth oxalate, NF, 45-50%, bgs, works lb. 1.15 - —
Rauwolfia serpentina root, powd., bbls., dms lb. 1.00 - 1.20
Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid).

RED PIGMENTS
Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red).
Red toner, Lake C, alizanine, bbls., works lb. 1.30 - —
Reserpine, cryst. bots gram. 1.25 - —
Resorcinol, tech. grade, bgs., c.l., works, frt. equald lb. 77½- —
bgs., l.c.l., same basis lb. .78½- —
Resorcinol in dms., 1c. per lb. more.
Resorcinol monoacetate, NF, dms. lb. 2.50 - —
USP, powd., dms., works lb. 2.95 - —
Rhatany root, ngs lb. .14 - .16
Rhodamine red toner, molybdated, PMA, kgs., works lb. 6.00 - —
Tungstated, PTMA, works, kgs lb. 6.60 - —
Rhodinol, 5-lb. cans lb. 42.00 - 51.00
Synthetic lb. 14.00 - 16.00
Rhubarb root, India, whole, bgs lb. .25 - —
powd., bgs lb. .35 - —
Riboflavin, USP, fib. dms., kilo or more, dlvd kilo. 36.00 - —
Riboflavin-5-phosphate-sodium, fib. dms., kilo or more, dlvd. kilo. 104.70 - —
Rice bran oil, clarified, dms., t.c.l. lb. .15½- —
tanks, dlvd. E lb. .14 - —
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate).
Roofing pitch (see Coaltar pitch, roofing).
Rose oil, nat., Bulgarian, bots lb. 1,152.00- —
Turkish, bots., otto lb. 600.00 - 700.00
absolute lb. 145.00 - —
Rosemary oil, Spanish, NF, cns., dms lb. 1.15 - 1.20
Spanish, tech., cns., dms lb. .80 - .93
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works unit-lb. .10½- —
Resin, 25-45% fib dms., works, unit-lb. .10½- —
Rottenstone, bgs., 5-ton lots, exwhse lb. .03¾- —
bgs., ton lots, same basis lb. .04¼- —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Rue oil, bots lb. 2.75 - 3.00
Rutin, NF, fib. dms., 10 kilo lots, kilo. 11.00 - —
fib. dms., 5 kilo lots kilo. 11.50 - —
fib. dms., 1 kilo kilo. 13.00 - —
Ryania, 100%, powd., bgs., c.l., works lb. .23 - —
bgs., l.c.l., same basis lb. .24 - —

S

S acid, bbls., works lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls lb. .42 - .44
Saccharin, calcium, fib. dms., 1,000-lb. lots, works lb. 2.50 - —
Saccharin, USP, gran., soluble, dms., 1,000-lb. lots lb. 1.50 - —
dms., smaller lots lb. 1.60 - —
USP, powd., soluble, dms., 1,000-lb. lots lb. 1.55 - —
dms., smaller lots lb. 1.65 - —
USP, powd., insoluble, dms., 1,000-lb. lots lb. 1.53 - —
dms., smaller lots lb. 1.63 - —
Safflower oil, dms., New York lb. .19 - 20
tanks, Atl. coast lb. .17½- —
Saffron, Mancha Superior, tins lb. 19.50 - —
Safrol, dms. lb. .65 - —
Sage, Dalmatian, bgs lb. .40 - —
Greek, cns. lb. .15 - —
Italian, cns. lb. .18 - —
Sage oil, clary, bots. lb. 11.00 - 12.00
Dalmatian, cns lb. 2.85 - 3.25
Spanish, cns lb. 1.25 - 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald lb. 1.23 - —
dms., l.c.l., same basis lb. 1.25 - —
Salicylamide, 100-lb. dms lb. 1.05 - —
Salicylic acid, tech., fib. dms., c.l., t.l., dlvd lb. .40½- —
fib. dms., l.c.l., dlvd lb. .44¾- —
USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more lb. .51¾- —
200-lb. fib. dms., less than 1,000 lbs lb. .54¾- —
100-lb. fib. dms., 1,000 lbs. or more lb. .53¾- —
100-lb. fib. dms., less than 1,000 lbs lb. .56¾- —
USP, pwd., 100-lb. fib. dms., 1,000 lbs. or more lb. .58¾- —
100-lb. fib. dms., less than 1,000 lbs lb. .61¾- —
Salol, NF, gran., bbls., kgs lb 1.20 - —
Powdered salol 25c per lb higher.
Salt, rock, paper bgs., c.l., 100 lbs 1.09 - —
Salt, table vacuum, common, fine, paper bgs., c.l 100 lbs. 1.34 - —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton 28.00 - —
Saltpeter (see Potassium nitrate).
Sandalwood, E. Indian, chips, bgs., lb. .55 - .66
powd., fib. dms lb. .75 - .76
Sandalwood oil, cns. lb. 27.00 - 30.00
Sarcosine, tech., tanks, f.o.b., works, frt. equald lb. 1.03 - —
lb. No stocks.
Sassafras oil, artif., dms lb. .45 - —
Nat., dom., dms lb. 1.40 - —
Savory oil, cns lb. 4.75 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .85 - —
Powd., bgs., frt. alld., 100% basis. lb. .93 - —
Scopolamine hydrobromide, USP, 10 oz. lots, bots oz. 13.50 - —
Sebacic acid, CP, bgs., c.l., works lb. .69½- —
bgs., l.c.l., works lb. .71½- —
Purified, bgs., c.l., works lb. .65½- —
bgs., l.c.l., works lb. .67½- —
Seidlitz mixture, fib. dms., 5,000-lb. lots lb. .30½- —
fib. dms., smaller lots lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd. lb. 6.50 - —
Senega root, bls lb. 2.40 - —
Senna leaves, Alexandria, whole and half, bls lb. .20 - .22
siftings lb. .16 - —
Senna leaves, Tinneveley, No. 1, bls lb. .26 - .30
No. 2, bls lb. .18 - —
No. 3, bls lb. .14 - —
pods, bls. lb. .28 - —
powd., bbls., bxs lb 17 - —
Serpentaria root, bls lb. 7.00 - 7.50
Sesame oil, USP, dms., t.c.l lb. .37 - .38
Sesame seed, Colombian, bgs lb. .15½- —
Lebanese, hulled, bgs lb. .19 - —
Nicaraguan, hulled, bgs lb. .21 - —
nat., bgs. lb. .15 - —
Salvadorian, Nat. bgs lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .47 - —
dms., t.c.l., works lb .22 - .20½
bbls., 1,500-lb. lots lb. .46 - —
kgs., 1,500-lb. lots lb. .47 - —
Bonedry shellacs prices for less than 1,500-lb lots 1c. per lb. higher for all packages.
Shellac, bleached, refd. ogs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb. lots lb. .57 - —
kgs., 1,500-lb. lots lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .37 - .39
lemon No. 2, bgs., 10-bg. lots, lb. .34 - .37
superfine, bgs., 10-bg. lots lb. .32 - .34
Shellac in 1 to 10-bg. lots 1c per lb more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works gal. .43 - —
tanks, works gal. .25 - —

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Sienna Pigment—Sodium Nitrate

Sienna pigment, burnt, paper bgs., c.l., works lb. .06½- .18½
paper bgs., l.c.l., works lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., l.c.l., works lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton 25.00 - —
bgs. l.c.l., works, ex whse. ton 45.00 -55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton 20.00 - —
bgs., l.c.l., works ton 25.00 - —
99½%, 140 mesh, bgs., c.l., works ton 15.00 - —
bgs., l.c.l., works ton 20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .20 - —
tanks, works lb. .15 - —
Silver bullion, ingots, cs Troy oz. .91⅛- —
Silver cyanide, bots., 1,000-oz. lots, oz. .94¾- —
bots., 500-oz. lots oz. .95¼- —
bots., 100-oz lots oz. .96¼- —
Silver nitrate, CP, cryst., bots., 1,000 to 4,000 oz., f.o.b. works oz. .67¼- —
bots., 250-500 oz., same basis, oz. 67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, 16-oz. bots oz. 1.46 - —
Snakeroot oil, Canada, cns lb. 40.00 -43.00
Soapbark, crushed, bls. lb. .40 - —
Powd., bls. lb. .50 - —
Whole, bls. lb. .30 - —

Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 - 4.77
bulk, c.l., works 100 lbs. 1.60 - —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 - 4.72
bulk, c.l., works 100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 5.20 - —
liq., 50%, sellers' tanks, works, dry basis 100 lbs. 2.90 - —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
Liq. 73%, sellers' tanks, works, dry basis 100 lbs. 3.00 - —
liq., 73%, rayon type, sellers' tanks, works, dry basis lb. 3.00 - 3.10
solid, 76%, dms., c.l., works, 100 lbs. 4.80 - —
Soda, sal, conc., bgs., c.l., works, 100 lbs. 2.50 - —
bgs., smaller lots, works 100 lbs. 2.80 - —
Sodium acetate, annyd., bgs., c.l., dlvd. E lb. .14½- —
bgs., l.c.l., same basis lb. .16½- —
NF, 60%, gran., dms., c.l., works, lb. .15½- —
dms., l.c.l., works lb. .17½- —
Sodium alginate, NF, white powd., dom., 300 lbs. or more lb. 1.02 - —
Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted lb. 1.90 - —

Sodium antimoniate, bgs., c.l., dlvd. E lb. .27½- —
bgs., l.c.l., dlvd. E lb. .29 - —
Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm. less than ton lots, f.o.b. works lb. .24 - —
ton lots or more, same basis, lb. .23½- —
Sodium arsenite, 94% soluble pink powder, 75% arsenous oxide, dealers, 100-lb dms., ton lots or more, f.o.b., works lb. .18½- —
1,600-1,900 dms., same basis lb. .19 - —
100-500 dms., same basis lb. .20 - —
Sodium ascorbate, dms., 100-kilos., dms., f.o.b. works kilo. 5.60 - —
less than 100-kilos kilo. 5.85 - —
Sodium benzoate tech., dms., c.l., t.l., frt. alld lb. .35 - —
dms., l.c.l., same basis lb. .39 - —
USP, 100-lb. dms., ton lots, same basis lb. .43 - —
100-lb. dms., 1,000-lb. lots, same basis. lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l. works 100 lbs. 2.95 - —
bgs., l.c.l., works 100 lbs. 3.85 - —
USP, powd., bgs., c.l., works, 100 lbs. 2.55 - —
bgs., l.c.l., works 100 lbs. 3.45 - —
Sodium bichromate, gran., ogs., c.l., t.l., works lb. .13 - —
bgs., l.c.l., works lb. .13½- .14¾
Sodium bichromate in dms. ¾c. per lb higher
Sodium bifluoride, fib, dms., c.l., works, frt. equald lb. .19½- —
fib, dms., l.c.l., same basis lb. .2025- —
Sodium bisulfate, bulk, c.l., works, 100 lbs. 2.00 - —
dms., c.l., frt. equald 100 lbs. 3.00 - 3.60
dms., l.c.l., frt. equald 100 lbs. 3.50 - 4.10

Sodium bisulfite, anhyd., bgs., c.l., works 100 lbs. 5.00 - —
bgs., l.c.l., works 100 lbs. 5.45 - —
Soln., 35° bbls., c.l., works 100 lbs. 1.70 - —
bbls., l.c.l., works 100 lbs. 2.20 - —
Sodium borate (see Borax).
Sodium borohydride, powd., dms., c.l., works lb. 8.00 - —
dms., l.c.l., works lb. 11.75 -14.00
stabilized water soln., 12% NaBH, 100% basis, tanks, works lb. 7.50 - —
dms., same basis lb. 11.50 -13.00
Pelletized sodium borohydride $1 per lb. higher in 1,000-lb lots.
Sodium bromide, USP, gran., dms., works lb. .40 - —
Sodium carbonate, cryst., monohydrated (see Soda, sal).
Sodium carbonate, monohydrated, bgs., l.c.l., works 100 lbs. 3.50 - —
bgs., c.l., works 100 lbs. 3.10 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works lb. .09 - —
dms., l.c.l., works lb. .09½- .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran., bgs. lb. .05 - —
Sodium chlorite, tech., dms., c.l., works lb. .58 - —
dms., 20-dm. lots or more, works. lb. .66 - —
dms., smaller lots, works lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms., l.c.l., works lb. .28 - —
Sodium chromate, anhyd., fib, dms., c.l., t.l., works lb. .14¾- —
fib dms., l.c.l., works lb. .15¼- .16¼
Tetrahydrate, bgs., c.l., t.l., works. lb. .1015- —
bgs., l.c.l. lb. .1065- .1190
Sodium citrate, anhyd., 200-lb. dm., f.o.b. works E lb. .62 - —
NF VIII, gran, bgs., c.l., same basis lb. .26 - —
USP XIV, gran., bgs., c.l., same basis lb. .29 - —
Sodium citrate, USP, powd. prices ½c. higher.
Sodium cyanate, dms., 1,000-lb. lots, works lb. .85 - —
dms., smaller lots, works lb. .90 - 1.10
Sodium cyanide, briquettes or gran., 97 percent min., dms., dlvd., E. of Rockies, 20,000-lb. lots lb. .183 - —
dms., same basis, 5,000 to 19,999-lb. lots lb. .203 - —
dms., same basis, 2,000 to 4,900-lb. lots lb. .208 - —
dms., same basis, 1,999-lb. lots and under lb. .218 - —
Sodium cyclamate, 100-lb. dm., f.o.b. works lb. 1.95 - —
Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works lb. .18 - —
250-lb. dms., l.c.l., works lb. ¹⁸⁄₁₆¾- —
Tech., 33-35% acetic acid, dms., l.c.l., works lb. .15 - —
250-lb. dms., l.c.l., works lb. .15¾- —
Sodium dimethyl dithiocarbamate, 40% soln., dms., c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., l.c.l., t.t.l., same basis lb. .47 - .52
tanks, same basis lb. .38 - —
Sodium ferrocyanide, bgs., 10-ton lots lb. .13½- —
bgs. smaller lots lb. .14¾- —
Sodium fluoride, white, 97%, fib, dms., c.l., works, frt. equald lb. .1390- —
fib, dms., l.c.l., works, frt. equald lb. .1465- —
Sodium formate, bgs., c.l., works. 100 lbs. 7.05 - —
bgs., l.c.l., ex whse 100 lbs. 8.65 - —
Sodium gentisate, 100-lb. fib. dms. lb. 5.50 - —
Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .84 - —
Tech., bgs., c.l., t.l., same basis lb. .34 - —
Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 - 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b. shipping point, lb. 2.20 - —
dms., 50-99 lbs., same basis lb. 1.77 - —
dms., 100-999 lbs., same basis lb. 1.20 - —
Sodium hydride, dms., 1,000 lbs. or more, same basis lb. .95 - —
Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite, dms, c.l., frt. alld lb. 23½- —
dms., l.c.l. frt. alld. lb. .25¾- —
Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots. lb. .23½- .35
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms. 1,000-lb. lots lb. .99 - —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb. dms., f.o.b. works lb. 2.13 - —
Sodium lauryl sulfate, dms., c.l., dlvd lb. .20½- —
dms., l.t.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .19½- —
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 - —
l.c.l., bgs., works 100 lbs. 4.75 - 5.25
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate, octahydrate, gran., bgs., c.l., works ton 210.00 - —
bgs., ton lots, ex whse. 100 lbs. 8.30 - —
bags, smaller lots, ex whse. 100 lbs. 9.61 -11.61
Tetrahydrate, bgs., c.l., works. ton 210.00 - —
bgs., ton lots, ex whse. 100 lbs. 14.83 - —
bgs., smaller lots, ex whse. 100 lbs. 16.08 -18.08
Sodium, metallic, bricks, c.l., works, lb. .21 - —
Fused, 18,000-lb. lots or more, works lb. .19½- —
tanks, works lb. .17 - —
Sodium metalinate, bbls., frt. alld. lb. .62 - —
Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt. 100 lbs. 11.10 - —
bgs., l.c.l., same basis 100 lbs. 11.85 - —
dms., c.l., same basis 100 lbs. 11.70 - —
dms., l.c.l., same basis 100 lbs. 12.45 - —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs. 6.05 - —
dms., c.l., works 100 lbs. 6.20 - —
dms., l.c.l., works 100 lbs. 6.55 - —
Sodium metasilicate, pentahydrate, bgs., c.l., works 100 lbs. 4.45 - —
bgs., l.c.l., works 100 lbs. 4.80 - 6.75
dms., l.c.l., works 100 lbs. 4.95 - —
dms., l.c.l., works 100 lbs. 5.30 - 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb. 1.02 - 1.21
Cryst., dms., works, frt. alld lb. .84 - .86
Sodium monoglutamate (see Monosodium glutamate).
Sodium monohydrate (see Sodium carbonate, monohydrated).
Sodium naphthionate, bbls. lb. .77 - —
Sodium nitrate, dom., crude, bgs., c.l., works ton 48.00 - —
bulk, c.l., works ton 44.00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse ton 48.00 - —
bulk, c.l., same basis ton 44.00 - —

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Sodium Bicarbonate U.S.P. Powdered No. 1—For general purpose use in chemical processing, dyestuffs, adhesives, starches, textiles and industrial applications.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

42 Mesh	Trace	200 Mesh	35.0%
100 Mesh	5%	325 Mesh	70.0%
170 Mesh	20.0%	400 Mesh	80.0%

Sodium Bicarbonate U.S.P. Fine Powdered No. 3DF for use specifically in dry powder fire extinguisher mixes, also in rubber and plastics blowing, lubricant for sheet vinyl.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

170 Mesh	Trace	325 Mesh	25.0%
200 Mesh	2.0%	400 Mesh	45.0%

Sodium Bicarbonate U.S.P. Granular No. 5 for use in effervescent salts, other pharmaceuticals and special types of cleansers.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

42 Mesh	Trace	100 Mesh	92.5%
65 Mesh	27.0%	170 Mesh	99.0%
80 Mesh	66.5%		

Sodium Bicarbonate U.S.P. Treated Free-Flowing for use in fire extinguishers and sponge rubber.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

42 Mesh	Trace	200 Mesh	35.0%
100 Mesh	5%	325 Mesh	70.0%
170 Mesh	20.0%	400 Mesh	80.0%

Are you getting Sodium Bicarbonate of the specific grain size for optimum results in your process or for maximum shelf life and performance of your products? You can eliminate doubts by specifying Church & Dwight. This simple step will assure you of obtaining the widest selection of grain sizes available because Church & Dwight is the country's largest supplier of Sodium Bicarbonate U.S.P. You'll also receive for the asking unmatched technical service based on more than 100 years of experience with Sodium Bicarbonate. Unusual grain size requirements are given special attention. Try us and see. For technical data on all grades of Sodium Bicarbonate, send for brochure, "Church & Dwight Sodium Bicarbonate—How It Serves Industry Today."

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Sodium nitrite, USP, bbls., c.l., works, frt. equald ..100 lbs. 9.40 • —
bbls., l.c.l., same basis ..100 lbs.11.40 • —
Sodium orthosilicate, conc., dms., c.l., works ..100 lbs. 6.70 • —
dms., l.c.l., works .....100 lbs. 7.05 • 7.65
Hydrated, flake, bbls., c.l., works. 100 lbs. 5.65 • —
bbls., l.c.l., works .....100 lbs. 7.60 • 7.90
Sodium oxalate, 88%, bgs., works. 100 lbs.12.35 • —
99%, bgs., works ..100 lbs.15.40 • —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate).
Sodium para-aminosalicylate (see Sodium p-aminosalicylate).
Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald lb. .26 • —
dms., l.c.l., same basis lb. .27½- .34
Pellets, dms., c.l., same basis. lb. .26 • —
dms., c.l., same basis .....lb. .27½- .34
Powd., dms., c.l., same basis.... lb. .25 • —
dms., l.c.l., same basis ..... lb. .26½- .33
Sodium pentabarbital, USP, dms., 100 lbs. or more lb. 6.00 • —
Sodium perborate, NF, tech., bgs., c.l., works lb. .13½- —
bgs., l.c.l., works.....lb. .14½- .15½
Sodium peroxide, dms., c.l., t.l., dlvd E. of Miss lb. .21½- —
dms., l.c.l., same basis lb. .22 • .22½
Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 • —
Sodium phenosulfonate, USP, IX, gran., dms lb. .52 • .53
NF, powd., dms. lb. .55 • .56
Sodium phosphate, dibasic, anhyd., bgs., c.l., frt equald 100 lbs. 8.10 • —
bgs., l.c.l., same basis 100 lbs. 8.50 • 9.55
Sodium phosphate, dibasic, cryst., bgs., c.l., t.l., frt, equald. 100 lbs. 4.75 • —
bgs., l.c.l., frt. equald 100 lbs. 5.15 • 5.90
Duohydrate, bgs., c.l., frt. equald. 100 lbs. 7.75 • —
bgs., l.c.l., same basis..100 lbs. 8.25 • —
Monobasic, anhyd bgs., c.l., frt. equald..100 lbs. 9.13 • —
bgs., l.c.l., same basis .100 lbs. 9.55 -10.15
Tribasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.13 • —
bgs., l.c.l., frt. equald 100 lbs. 9.60 -10.20
Sodium phosphate in dms. 60c. to 80c. higher than bgs
Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 • .20½
Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald lb. .90 • —
Sodium propionate, any quantity, dms., dlvd E. of Rockies. lb. .34½- —
Prices W. of Rockies 3c. per lb. more
Sodium prussiate, yellow (see Sodium ferrocyanide)
Sodium pyrophosphate, acid, bgs., c.l., works, frt. equald. 100 lbs.11.25 • —
bgs., l.c.l., same basis .100 lbs.12.00 -12.50
Ferric, dms., c.l., t.l., works....lb. .36 • —
dms., l.c.l., works.....lb. .37 • .39
Tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.38 • —
bgs., l.c.l., same basis ..100 lbs. 8.13 • —
bulk, hopper cars, same basis. 100 lbs. 6.83 • —
Sodium salicylate, USP, dms., 1,000-lbs. or more lb. .78½- —
dms., less than 1,000 lbs., dms.lb. .81½- —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 • —
l.c.l., dlvd. zone 1.....100 lbs. 4.10 • 4.35
dlvd. zone 2 .....100 lbs. 4.35 • 4.60
dlvd. zone 3 .....100 lbs. 4.75 • 4.90
dlvd. zone 4 .....100 lbs. 5.35 • 5.60

Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La., and Miss. south of 31°; Tex. E. of 100°; S. of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 96°, Kan., Neb. W. of 98° N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

Sodium sesquisilicate, anhyd., bgs., c.l., t.l., works 100 lbs. 5.70 • —
dms., c.l., t.l., works ...100 lbs. 6.20 • —
Sodium sesquisilicate, hydrated, bgs., c.l., works ... 100 lbs. 5.00 • —
bgs., 6,000-19,900 lb. lots, works 100 lbs. 5.35 • —
dms., c.l., works 100 lbs. 5.50 • —
dms., 6,000-19,900 lb. lots, works. 100 lbs. 5.85 • —
Sodium silicate, liq., 40° Be., 1:3.2, turbid, dms., c.l., works. 100 lbs. 1.65 • —
dms., t.c.l., works 100 lbs. 1.90 • 2.40
tanks, works .....100 lbs. 1.20 • —
47° Be., 1:29.9, turbid, dms., c.l., works 100 lbs. 2.25 • —
dms., t.c.l., works 100 lbs. 2.60 • 3.45
tanks, works .....100 lbs. 1.90 • —
52° Be., 1:2.4, turbid, dms., c.l., works 100 lbs. 2.65 • —
dms., t.c.l., works ...100 lbs. 3.00 • 3.50
tanks, works .....100 lbs. 2.30 • —
Solid, 1.3.2, bgs., works..... ton.67.50 • —
Sodium silicofluoride, bgs., c.l., works..lb. .065 • —
bgs., l.c.l., works.....lb. .725- —
Sodium silicofluoride in dms., 0.4c. per lb. higher
Sodium stannate, dms., works, frt. alld. E..lb. .731 • .887
Sodium sulfa drugs (see Sulfa name).
Sodium sulfanilate, bbls., works lb. .22 • —
Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd., bgs., c.l., dlvd. E. ton.56.00 • —
Tech., detergent, rayon grade, bgs., c.l., works..ton.38.00 • —
bulk, c.l., works..ton.34.00 • —
USP, cryst., fib dms. lb. .17½- .18
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq., 40-44%, tanks, works, 100% basis ton.130.00 • —
Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 • —
dms., l.c.l., same basis.....lb. .07 • —
Fused, bbls., c.l., works, E., frt. equald. lb. .05½- —
bbls., l.c.l., same basis lb. .06½- —
Sodium sulfite, anhyd., tech., bgs., c.l., works..100 lbs. 3.50 • —
bgs., t.l., same basis 100 lbs. 4.00 • —
Powd., bgs., c.l., works..100 lbs. 7.55 • —
bgs. l.c.l., same basis 100 lbs. 7.95 • —
Sodium sulfocyanide, CP (see Sodium thiocyanate).
Sodium tetraborate (see Borax).
Sodium tetrasulfide, liq., 40%, dms., c.l., works frt. equald lb. .04½- —
dms., l.c.l., same basis....lb. .05½- —

Sodium thiocyanate, purified, cryst., 250-lb. dms. lb. .90 • —
Tech., anhyd., dms., 1 ton lots or more, works. lb. .367 • —
dms., less than ton lots, works..lb. .387 • —
Sodium thiosulfate, NF, cryst., bbls. lb. .13½- —
Tech., anhyd., 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 7.75 • —
100-lb. bgs. l.c.l., t.l., frt. equald 100 lbs. 8.15 • —
Sodium thiosulfate, photograde, 64-lb. bgs., c.l., t.l., frt. equald. lb. .0775- —
64-lb. bgs., l.c.l. t.l., frt. equald lb. .0815- —
Tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald..100 lbs. 4.95 • —
100-lb. bgs., l.c.l., t.l., frt. equald 100 lbs. 5.20 • —
Sodium titanate, ctns., c.l., works. lb. .14¼- —
ctns., 5-ton lots, works lb. .14½- —
ctns., 1-ton lots or less, works lb. .14¾- —
Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt alld. E. lb. .35 • —
50-lb. dms., c.l., frt. alld. E lb. .35½- —
10-lb. cns., c.l., frt alld E lb. .42 — —
Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.
Sodium tripolyphosphate, bgs., c.l., works, frt. equald..100 lbs. 7.73 • —
bgs., l.c.l., same basis....100 lbs. 8.48 • —
bulk, hopper cars, same basis. 100 lbs. 7.18 • —
Sodium tungstate, tech., kgs., dlvd. E lb. 1.32 • —
Sodium-ammonium phosphate, purif., cryst., dms., works lb. .52 • —

Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium formaldehyde sulfoxylate, dms., t.l., dlvd..lb. .22½- —
dms., l.t.l., same basis.....lb. .23 • —
Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works lb. .28 • —
fib. dms., smaller lots, same basis lb. .30 • —
Solvent naphtha, coaltar, high-flash, tanks, frt. equald gal. .30 • .35½
Petroleum, straight, aromatic, 310°-360F. b.r., 14°-16°C. m.a.p., tankcars, New Jersey and New York.gal. .29 • —
Houston, Texas gal. .29 • —
355°-420°F. b.r., 17°-18°C. m.a.p., tankcars, New Jersey and New York. gal. .30 • —
Houston, Texas gal. .30 • —
Partial aromatic, 211°-265°F b.r., 31°C m.a.p., tankcars, New Jersey and New York gal. .235 • —
286°-340°F. b.r., 22°C. m.a.p., tankcars, New Jersey and New York gal. .275 • —
319°-380°F. b.r., 27° C. m.a.p., tankcars, New Jersey and New York gal. .27 • —
322-395°F. b.r., 28°C m.a.p., tankcars, New Jersey and New York gal. .28 • —

Sorbitan monostearate, fib dms., 20,000-lb. lots, works lb. .33¼- —
10,000 to 20,000-lb. lots, works. lb. .35½- —
fib. dms., smaller lots, works lb. .38½- .40½
Sorbitan tristearate, fib dms. 20,000-lb. lots, works lb. .34 • —
fib. dms., 10,000 to 20,000-lb. lots, works lb. .36 • —
fib. dms., smaller lots, works lb. .39 • .41
Sorbitol, USP, reg., 70% aqueous, dms., c.l., works lb. .18 • —
dms., t.c.l., works ..... lb. .19 • —
tanks, works ..... lb. .16¼- —
cryst., resin grade, pellets, dms., c.l., works lb. .23 • —
dms., 1 to 5-ton lots, works. lb .25 .26
powd., dms., c.l., works ..... lb. .38½- —
dms., 10,000 to 20,000 lb. lots, works lb. .40½- —
Sorbitol, soln., comi., aqueous, dms., c.l., works lb. .26 • —
dms., t.c.l., works .....lb. .27 • —
tanks, works .....lb. .23¼- —
Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 • —
bgs., t.c.l., works ..... lb. .23¼- .23½
Chemically isolated, new process, bgs., c.l., works lb. .20 • —
bgs., t.c.l., works ..... lb. .20¼- .29½
Soybean meal, 44%, bulk, unrestricted, Decatur ton.50.50 • —

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"Get the jump" on competition by using a **single** local source with complete, on-the-spot alcohol stocks from America's leading producers. Your increased volume purchases through a single source assure you of maximum buying economy—and you benefit from combination order savings (different types and grades delivered at one time). Your SCG salesman can objectively recommend one or more alcohols whose physical properties add important end-use features to your products. Call today for specific suggestions—there are 21 convenient SCG plants and stock points ready to supply **all** your alcohol requirements . . .

properties of alcohols available from SCG

ALCOHOLS	Boiling Range IBP °F.	Boiling Range IBP °C.	Boiling Range Dry °F.	Boiling Range Dry °C.	Flash Point F. (Closed Cup)	Speed Evap. Min.	Solubility Weight % In H_2O	Solubility Weight % of H_2O	Spec. Grav. @60 F.	Wt. per Gal. Average @60 F.
Methanol 99.9%	147	64	149	65	40	1.6	inf.	inf.	.794	6.61
Ethanol 190 Proof	167	75	176	80	48	2.4	inf.	inf.	.818	6.81
Ethanol Anhydrous	167	75	176	80	45	2.3	inf.	inf.	.801	6.67
Isopropyl 91%	175	79	181	83	62	3.6	inf.	inf.	.818	6.81
Isopropyl Anhydrous	179	82	181	83	59	2.6	inf.	inf.	.790	6.58
n-Propyl Alcohol	205	96	208	98	90†	5.3	inf.	inf.	.808	6.73
Sec. Butyl Alcohol	206	97	217	103	74	5.1	24.4	56.0	.808**	6.73*
n-Butyl Alcohol	241	116	246	119	95	11.6	7.7	20.1	.811*	6.75*
Amyl Alcohol	246	119	284	140	90	19.0	2.8	6.9	.817*	6.8*
Fusel Oil (refined)	230	110	293	145	106	19.3	2.5	10.0	.812*	6.76*
Cyclohexanol	320	160	324	162	154†	73	.13	11.0	.950*	7.91*

†open cup *at 68F.

WRITE FOR YOUR COPY of The Solvents and Chemicals Group ORGANIC SOLVENTS HANDBOOK.
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Soybean Oil—Tall Oil Fatty Acids

Soybean oil, crude, tanks, Decatur, lb. .10⅞- —
Foots, soapstock acid 95%, tanks, New York lb. .06¼- —
Alkali, refd., dms. lb. .1518- .1545
tanks lb. .1318- —
Clarified, dms. lb. .1468- .1495
tanks lb. .1268- —
Refd., salad, dms. lb. .15⅛- .15⅜
tanks lb. .13⅛- —
Soybean oil acids, dbl. dist., dms., lb. .17¼- .18½
tanks lb. .14¾- —
S. D., dms. lb. .16 - .18½
tanks lb. .13½- —
Sparteine sulfate, cns., 100 oz. or more oz. .80 - —
Spearmint leaves, dom., bls lb. 75 - —
Spearmint oil, NF, dms lb. 3.75 - —
Sperm oil, bleached winter, 45°, dms. lb. .1750- .1850
tanks lb. .1550- —
Nat., winter, 45°, dms. lb. .1650- .1750
tanks lb. .1450- —
Spermaceti wax, blocks, cs. lb. .32 - .33
cakes, cs. lb. .33 .34
Spruce oil, cns., dms. lb. 2.10 - 3.55
Squill, white, bls. lb. .16 - .18
Powd., bbls., bxs. lb. .17 - .20
St. John's bread, edible, bls lb. .17 - .20
Stannic chloride, anhyd., dms., works lb. .902 - .924
Stannous chloride, anhyd., dms. lb. 1.123 - 1.478
Stannous chloride, hyd., crystal, 200 lbs. or more lb. .95½- —
Stannous oxide, dms., dlvd. lb. 1.673 - 1.803
Stannous sulfate, works lb. 1.211 - 1.251
Star root (see Helonias root).
Stargrass root (see Aletris root.)
Stavesacre seed, bgs. lb. .60 - .61
Stearic acid, bbl. pressed, bgs. lb. .16¾- .19¼
Single-pressed, bgs. lb. .16¼- .18¾
Triple-pressed, bgs. lb. .18½- .21
Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York gal. .18 - —
tanks, Houston gal. .1475- —
tanks, group 3 gal. .12875- —
Stramonium leaves, bgs. lb. .15 - .20
Streptomycin sulfate, bulk gram. .028 - .03
Strontium bromide, NF, cryst., gran., 150-lb. dm., frt. equald lb. 1.00 - —
Strontium carbonate, pure, dms., 5-ton lots or more, works lb. .35 - —
dms., 1-ton lots, works lb. .37 - —
Tech., dms., works lb. .19 - —
Strontium chromate, fib dms., dlvd. lb. .48 - —
Strontium iodide, jars, 25-lb lots lb. 3.57 - —
Strontium nitrate, bgs., c.l., works, 100 lbs.11.00 - —
bgs., l.c.l., works 100 lbs.12.00 - —
Strontium salicylate, NF, dms lb. 1.88 - —
Strontium sulfate, air floated, 90% 325 mesh, bgs., works, ton.56.70 -66.15
Strophanthin G (see Quabain, USP).
Strophanthin K, bots. gm.35.00 -35.50
Strophanthus seed, Kombi, biologically tested, bgs lb. 2.50 - 3.00
Styrax gum, USP, cs. lb. 4.50 - 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., same basis lb. .19 - —
tanks, frt. equald. lb. .132 - —
Tech., 99.2%, dms., c.l., dlvd. lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tanks, frt. equald lb. .1103- —
Above prices are escalated for each calendar quarter on the basis of cost of benzene in the range of 31c. to 34c. a gallon and petroleum refining labor.
Styrolyl acetate, bots lb. 1.03 - 1.10
Succinic acid, purif., cryst., dms., t.l., frt. alld lb. .62 - —
dms., l.t.l., same basis lb. .63 - .75
Succinic anhydride, dms., c.l., t.l., dlvd lb. .51 - —
dms., l.c.l., same basis lb. .52 - —
Sucrose, refd., white, bgs., refy E. lb. .0930- —
Sucrose acetate, isobutyrate, 90%, dms., t.l., dlvd lb. .33½- —
dms., l.t.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
100%, t.l., dms., dlvd. lb. .35½- —
l.t.l., dms., same basis lb. .37 - —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l., works lb. 1.00 - —
Sugar (see Sucrose).
Sugar cane wax, dom., refd., slabs, 80-lb. ctns., works lb. .60 - .63
80-lb ctns. spot lb. .65 - .75
Sulfabenzamide, dms. kilo. 8.80 - 9.90
Sulfabenzamide-sodium, dms. kilo. 9.00 -10.10
Sulfacetamide, USP, fib. dms kilo. 6.61 - 6.83
Sulfacetamide-sodium, USP, fib. dms. kilo. 9.15 - 9.25
Sulfadiazine, USP, microcrystals, dms kilo.23.35 -24.45
USP, powd., dms. kilo.22.60 -23.70
Sulfadiazine-sodium, USP, dms kilo.24.80 -25.90
Sulfaguanidine, NF X, dms kilo. 5.50 - 6.60
Sulfamerazine, USP, microcrystals, dms. kilo.23.50 - —
Sulfamerazine-sodium, USP, powd., dms kilo.24.80 25.90
Sulfamethazine, USP XV, microcrystals, dms kilo.19.65 -20.75
USP XV, powd., dms. kilo.18.75 -19.65
Sulfamic acid, cryst., dms., c.l., t.l., works 100 lbs.16.00 - —
dms., l.c.l., t.l., works 100 lbs.17.50 18.50
Gran., dms., c.l., t.l., works, 100 lbs.14.75 - —
dms., l.c.l., t.l., works 100 lbs.16.25 -17.25
Sulfanilamide, NF, reg., 1,000 lb., fib. dms., frt. equald lb. 1.75 - —
NF, reg., smaller lots, fib. dms., frt. equald lb. 1.80 - —
Sulfanilamide quinoxaline, veterinary, dms kilo.16.28 - —
Sulfanilic acid, tech., dms., c.l., frt. alld lb. .21 - —
dms., l.c.l., frt. alld lb. .23 - —
Sulfapyridine, USP XV, powd., bots., tins kilo.15.45 -16.55
Sulfapyridine-sodium, monohydrate, dms kilo.16.53 -17.65
Sulfathiazole, NF X, microcrystals, dms kilo. 6.25 - 6.90
NF X, powd., dms. kilo. 5.50 - 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more lb. 2.35 - —
Sulfur, comi., flour, bgs., mines, 100 lbs. 2.35 - —
bbls., mines 100 lbs. 3.30 - —
lump, bgs., mines 100 lbs. 2.25 - —
bbls., mines 100 lbs. 2.80 - —
Sulfur, crude, dom., bright, bulk, f.o.b. cars, mines long-ton.23.50 - —
export, f.o.b vessels, Gulf ports, long-ton.25.00 - —
US and Canada, f.o.b. vessels Gulf ports long-ton.25.00 - —
Domestic dark sulfur prices are $1 per long-ton lower.
Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton.24.00 - —
Mexican dark sulfur price is $1 per long-ton lower.
Sulfur, refd., flowers, NF, bgs., mines 100 lbs. 5.65 - —
bbls., mines 100 lbs. 7.00 - —
flour, light, bgs., mines 100 lbs. 5.25 - —
bbls., mines 100 lbs. 6.25 - —
lump, bgs., mines 100 lbs. 4.95 - —
rolls, bgs., mines 100 lbs. 5.50 - —
bbls., mines 100 lbs. 6.25 - —
salt block, bgs., mines 100 lbs. 4.65 - —
virgin block, bbls., mines 100 lbs. 4.70 - —
Sulfur, rubbermakers, comi., reg., bgs., mines 100 lbs. 2.45 - —
bbls., mines 100 lbs. 3.70 - —
98-100%, pashing through mesh, bgs., mines 100 lbs. 2.55 - —
bbls., mines 100 lbs. 3.80 - —
Sulfur, refd., bgs., mines 100 lbs. 4.90 - —
bbls., mines 100 lbs. 6.05 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.75 - —
bbls., mines 100 lbs. 4.00 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .05½- —
ret. dms., l.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —
Sulfur dioxide, liq., comi., cyls., works, frt. equald lb. .10 - .13
multi-unit cars, works lb. .0535- —
tanks, works lb. .045 - —
refrigeration, cyls., dlvd lb. .33 - —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb. .05½- —
dms., l.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 - —
cbys., l.c.l., works 100 lbs. 2.30 - —
tanks, works ton.18.60 - —
66°Be, cbys., c.l., works 100 lbs. 2.25 - —
cbys., l.c.l., works 100 lbs. 2.55 - 3.35
tanks, works ton.22.35 - —
98%, tanks, works, East ton.23.50 - —
99%, tanks, works, East ton.23.70 - —
100%, tanks, works, East ton.23.95 - —
Sulfuric acid, California works, tanks ton.26.45 - —
CP, NF, consumers' cbys., c.l., frt. equald lb. .12¾- —
Sulfuric acid, CP, NF, consumers' cbys., l.c.l., same basis lb. .14¼- .14¾
5-pt. bots., extra, cs., c.l., works, frt. al'd lb. .16¼- —
5-pt. bots., extra, cs., l.c.l., same basis lb. .17¾- .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton.25.00 - —
40%, tanks, works ton.29.00 - —
65%, tanks works ton.39.50 - —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton. .90 - .93
bulk, c.l., Carteret, N. J. unit-ton. .90 - .93
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla., unit-ton. 1.00 - —
bulk, f.o.b. vessel at Fla unit-ton. 1.05 - —
Sweet birch oil, USP, northern, cns lb. 4.00 - 9.50
USP, southern, cns lb. 2.00 - 3.05

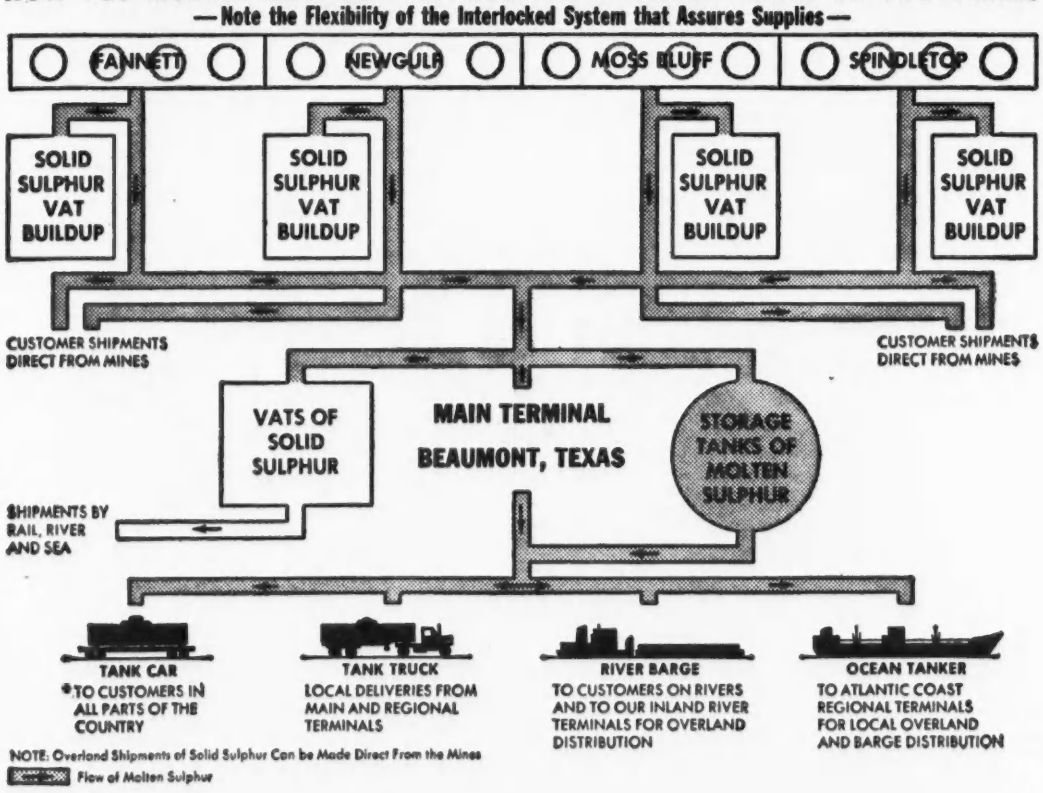
T

2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
dms., l.c.l., same basis lb. 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works lb. 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton.28.00 - —
bgs., l.c.l., works ton.31.00 -36.00
99.5%, 325 mesh, bgs., c.l., works, New York ton.31.00 - —
bgs., l.c.l., works ton.34.00 - —
99.95X, 400 mesh, micronized, bgs., c.l. works ton.38.00 - —
625 mesh micronized, bgs., c.l works ton.80.00 - —
Dom., ord., Calif., grd., bgs., c.l., works ton.34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton.19.40 - —
bgs., l.c.l., works ton.37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton.20.00 -35.00
tanks, works lb. .02⅞- .03¼
Tall oil, crude, tanks, works lb. .03¼- .03½
Acid, refined dms., c.l., works lb. .08¾- .10
tanks, works lb. .07½- .08¾
Dist., depending on grade, dms., c.l., works lb. .07¼- .09¾
tanks, works lb. .06 - .08½
Tall oil fatty acids, less 2% rosin acid, dms., c.l., works lb. .09¾- .11
tanks, works lb. .07¾- .09
2-6% rosin acid, dms., c.l., works. lb. .08½- .09
tanks, works lb. .06½- .07

molten sulphur

HOW TGS MOLTEN SULPHUR TRAVELS FROM FRASCH MINES TO CUSTOMERS

—Note the Flexibility of the Interlocked System that Assures Supplies—


FANNETT
NEWGULF
MOSS BLUFF
SPINDLETOP
SOLID SULPHUR VAT BUILDUP
SOLID SULPHUR VAT BUILDUP
SOLID SULPHUR VAT BUILDUP
SOLID SULPHUR VAT BUILDUP
CUSTOMER SHIPMENTS DIRECT FROM MINES
CUSTOMER SHIPMENTS DIRECT FROM MINES
VATS OF SOLID SULPHUR
MAIN TERMINAL
BEAUMONT, TEXAS
STORAGE TANKS OF MOLTEN SULPHUR
SHIPMENTS BY RAIL, RIVER AND SEA
TANK CAR
*TO CUSTOMERS IN ALL PARTS OF THE COUNTRY
TANK TRUCK
LOCAL DELIVERIES FROM MAIN AND REGIONAL TERMINALS
RIVER BARGE
TO CUSTOMERS ON RIVERS AND TO OUR INLAND RIVER TERMINALS FOR OVERLAND DISTRIBUTION
OCEAN TANKER
TO ATLANTIC COAST REGIONAL TERMINALS FOR LOCAL OVERLAND AND BARGE DISTRIBUTION
NOTE: Overland Shipments of Solid Sulphur Can be Made Direct From the Mines
Flow of Molten Sulphur

Flexible Facilities to meet a Growing Demand

The rapidly growing demand for deliveries of sulphur in molten form—and it is coming from all parts of the country—is well-answered by the flexibility of our production, storage and distribution facilities.

Here, graphically, is the way TGS Molten Sulphur moves from the four Frasch Process producing areas in Texas to customers. Unusual flexibility enables us to do several things simultaneously. We can fill orders direct from the mines, build up inventory at our main terminal in Beaumont, Texas, ship to customers from this main terminal or supply our regional terminals.

We maintain steady production schedules at all properties. With flexible storage, shipping and delivery facilities of not only molten sulphur but solid sulphur, we are in a strong position to serve the sulphur-consuming plants all over the United States and Canada. Our sulphur recovery plants (from natural gas) in Wyoming and Alberta take care of the demand in northwest United States and Western Canada for both molten and solid sulphur.

TEXAS GULF SULPHUR COMPANY
75 East 45th Street, New York 17, N. Y.
811 Rusk Avenue, Houston 2, Texas
Sulphur Producing Units: Newgulf, Texas • Moss Bluff, Texas • Fannett, Texas • Spindletop, Texas • Worland, Wyoming • Okotoks, Alberta, Canada

Tallow, edible, tanks, dlvd.....lb. .68 - —
Inedible, fancy, bleachable, tanks, lb. .05⅝- —
fancy, guarant'd, bulk, f.o.b., steamer..lb. .06⅜- —
dms., f.a.s. .....lb. .07⅛- —
Inedible, fancy, guaranteed, tanks, dlvd..lb. .06 - —
No. 1, dlvd. .....lb. .05⅜- —
Prime, tanks, dlvd. .....lb. .05⅜- —
Special tanks, dlvd. .....lb. .05¼- —
Sulfonated, 25%, bbls., l.c.l. ....lb. .08½- .08¾
50%, bbls., l.c.l. .....lb. .10½- .11
Tallow acids, dist., dms. .....lb. .13¼- .15⅝
tanks .....lb. .10¾- —
Hydrogenated, dms. .....lb. .15½- .18
Tallow oil, acidless, dms., c.l.....lb. .14 - —
dms., l.c.l. .....lb. .16 - —
tanks .....lb. .12½- —
Tangerine oil, Florida, dms.....lb. 4.25 - —
Tankage, animal, feeding, 9-11% ammonia, New York bulk, unit-ton. 4.75 - 5.00
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 - —
bbls., smaller lots.....lb. 2.06 - 2.07
powd., bbls., 1,000-lb. lots....lb. 1.95 - —
bbls., smaller lots.....lb. 1.96 - 1.99
Tech., dms. .....lb. 1.05 - —
Tansy oil, dms.....lb. 6.60 - 8.00
Tar acid oil, 15-18%, dms., c.l., dms., t.c.l., same basis ...gal. .55½- —
tanks, same basis .....gal. .43½- —
25-28%, dms., c.l., frt. equald basis gal. .53½- —
dms., t.c.l., same basis gal. .60 - —
tanks, same basis gal. .62 - —
50-53%, dms., c.l., same basis gal. .50 - —
dms., t.c.l., same basis.....gal. .75 - —
tanks, same basis .....gal. .77 - —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF, 100-lb. bgs., c.l., frt. equald lb. .41 - —
bgs., 10,000 lbs. 1 shipt., same basis lb. .43 - —
bgs., smaller lots, same basis lb. .47 - —
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms lb. .70 - —
Terpineol, extra, dms.....lb. .50 - .60
Prime, dms. .....lb. .40 - .50
Terpinyl acetate, extra, cns., dms. lb. .64 - .75
Prime, dms .....lb. .53 - .56
Terpinyl propionate, dms.....lb. 1.65 - 1.70
Testosterone, USP, bots. ... gram. No prices.
Testosterone propionate, USP bots. gram. No prices.
Tetrachloroethane, dms., works lb. .14½- —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech. (see Perchloroethylene).
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms., l.c.l., works .....lb. .22 - .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .65 - —
dms., l.c.l., dlvd. E.....lb. .66½- —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 - —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½- —
dms., l.c.l., dlvd. E.....lb. .55 - —
tanks, dlvd. E.....lb. .51 - —
Tetraethylthiuram disulfide, tech., dms., frt. alld lb. 1.04 - —
Tetrahydrofuran, dms., c.l., t.l., works lb. .36½- —
dms., l.c.l., or l.t.l., works.....lb. .37 - —
tanks, works .....lb. .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .25½- —
dms., l.c.l., Memphis, Tenn. ..lb. .26½- —
dms., c.l., t.l., Newark, N.J. ..lb. .27½- —
Tetrahydrofurfuryl alcohol, dms., l.c.l., Newark, N. J....lb. .28½- —
tanks, dlvd. E. of Denver.....lb. .25 - —
tanks, dlvd. W. of Denver.....lb. .26 - —
Tetrahydrophthalic anhydride, dms., c.l., t.l., frt. alld. E lb. .39 - —
l.c.l., l.t.l., same basis .....lb. .41 - —
Tetrapotassium phosphate (see potassium phosphate).
Thallium metal, dlvd .....lb. 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb. 5.00 -10.00
Theobromine, NF, fib. dms., 100-lbs., f.o.b., works lb. 4.10 - 4.15
Theobromine and sodium acetate, USP, fib. dms., 500-lbs. works lb. 6.45 - —
Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works. lb. 3.80 - —
Theophyline, USP, anhyd., 100-lb. dms., frt. alld lb. 3.65 - —
Thiamine hydrochloride, USP, fib. dms., frt. alld..kilo.27.00 - —
Thiamine mononitrate, USP, fib dms., frt. alld..kilo.27.00 - —
Thiocarbanilide, dms., ton lots lb. .74 - —
dms., less ton lots.....lb. .76 - —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb. 5.20 - —
Tungstated, PTMA, kgs., works lb. 6.20 - —
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis lb. 1.15 - —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 - —
Thiourea, tech., bgs., t.l., frt. alld. lb. .30 - —
bgs., ton lots, same basis ..lb. .32 - —
bgs., less than ton lots, same basis lb. .33 - —
Thorium nitrate, purif., fib. dms., 100-lb. lots or more, works lb. 3.50 - —
dl-Threonine, dms., 25 kilos, works, kilo.115.00 - —
Thyme leaves, French, triple sifted extra, bgs..lb. .25 - —
Spanish, extra, bgs.....lb. .11 - —
reg., bgs. .....lb. .08 - —
Thyme oil, NF, red, cns., dms....lb. 3.25 - 3.60
NF, white, cns.....lb. 3.50 - 3.95
Tech., white, cns.....lb. .80 - 1.10
Thymol, fib. dms., 25-lbs., f.o.b. works lb. 2.45 - —
Thymol iodide, NF, dms., 100-lbs. f.o.b. works lb. 7.30 - —
Timbo root (see Cube root).
Tin chloride (see Stannous chloride, anhyd.).
Tin crystals (see Stannous chloride, hydrous).
Tin metal (Straits) .....lb. 1.21 - —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.).
Titanium dioxide, anatase, all grades, bgs., 30-ton c.l. min. frt. alld. lb. .25 - —
20-ton c.l. min. frt. alld. lb. .25½- —
bgs., l.c.l., same basis....lb. .26 - .26½
Titanium dioxide, rutile, all grades, bgs., 30-ton c.l. min. frt. aid.. .27 - —
20-ton c.l., min. frt. alld. lb. .27½- —
bgs., l.c.l., same basis .....lb. .28 - .28½
metallurgical, nat., bgs., c.l., f.o.b. Jacksonville, Fla.ton.180.00 - —
Titanium dioxide, metallurgical, nat., bgs., 5-ton lots, Niagara Falls, N. Y..ton.205.00 - —
bgs., ton lots, same basis. ton.215.00 - —
Milled metallurgical titanium dioxide $7.50 per ton higher.
Titanium dioxide-calcium pigment, 30% Ti O2, reg. bgs., 30-ton c.l., f.o.b..lb. .09½- —
20-ton c.l., works.....lb. .09⅜- —
bgs., l.c.l., works .....lb. .09⅞- —
50% Ti O2, high-tinting, dms., 30-ton c.l..lb. .14½- —
20-ton c.l., works.....lb. .14⅜- —
dms., l.c.l. .....lb. .14⅞- —
Titanium hydride, powd., dms., works lb. 8.10 - 9.00
Titanium tetrachloride, tech., dms., c.l., works lb. .26 - —
dms., l.c.l., works.....lb. .27½- .29
tanks, works .....lb. .20 - —
Tobias acid, dms., c.l., t.l., 20,000 min., f.o.b. plant, frt. alld. E lb. .81 - —
dms., l.c.l., l.t.l., 5,000-lbs.-19,999 lbs., same basis lb. .81½- —
dms., l.c.l., l.t.l., less than 5,000 lbs., same basis lb. .84 - —
For west coast delivery add 2c. per lb.
d-a-Tocopherols, NF, mixer conc., pure basis, bots kilo.67.00 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo.122.00 - —
d-a-Tocopheryl acid succinate, cryst., bots kilo.109.00 - —
di-a-Tocopherol, bots. kilo.99.00 - —
di-a-Tocopheryl acetate, bots kilo.90.00 - —
25% dry, powd., bots .....kilo.22.50 -24.00
33% dry, powd., bots. .....kilo.30.00 -31.50
o-Tolidine base, dry, kgs., 100% basis lb. 1.55 - —
Paste, kgs., 100% basis lb. 1.50 - —

TOLUOL
Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine, hydrochloride paste, kgs., 100% basis lb. 1.50 - —
Tolu balsam, cns. .....lb. 4.00 - 4.50
Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies gal. .25½- —
Petroleum, indust., tanks, f.o.b., frt. equald gal. .23 - —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 - —
dms., l.t.l., same basis.....lb. .63 - —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld. lb. .16 - —
1,000-lb. or more, same basis lb. .18 - —
less than 1,000-lb., same basis lb. .23 - —
tanks, same basis .....lb. .14 - —
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.
p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l. lb. .90 - —
dms., 125 lbs. to t.l. .....lb. 1.00 - —
m-Toluidine, dms., c.l., works, frt. alld. lb. .83 - —
dms., t.c.l., same basis.....lb. .84 - —
tanks, same basis .....lb. .82 - —
o-Toluidine, dms., c.l., works, frt. alld..lb. .27 - —
dms., l.c.l., same basis .....lb. .28 - —
tanks, same basis.....lb. .26 - —
p-Toluidine, tech., flake, dms., frt. alld lb. .50 - —
Cast, dms., frt. alld. .....lb. .45 - —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 - 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 - —
Light shades, kgs. works.....lb. 1.70 - —
2,4-Toiylenediamine, cryst., fib. dms., t.c.l., frt. alld lb. 1.10 - —
Tonka beans, Angostura, prime f.o.b., N.Y..lb. 1.35 - 1.50
Brazilian, Surinam, cs., same basis..lb. 1.00 - 1.10
Totaquine, 100-oz. lots, cns. oz. .42 - —
Toxaphene, dms., c.l., t.l., works. lb. .22 - —
dms., l.c.l., t.t.l., works....lb. .28 - —
Tragacanth gum, No. 1, ribbons, cs lb. 4.10 - 4.20
No. 2, cs. .....lb. 3.75 3.80
No. 3, cs. .....lb. 3.40 3.65
USP. powd., bbls. .....lb 1.05 1.15
Triacetin, dms., c.l., dlvd. E. of Rockies..lb. .38 - —
dms., l.c.l., same basis.....lb. .39½- —
tanks, same basis .....lb. .35½- —
Triallylamine, dms., c.l., dlvd...lb. .985 - —
dms., l.c.l., dlvd. .....lb. .995 - —
tanks, dlvd. .....lb. .96 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver. lb. .42½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .43½- —
tanks, frt. alld. E. of Denver..lb. .40 - —

Toluic Acids provide ideal intermediates for the manufacture of aromatic esters, amides, acid chlorides, nitrile and anhydride compounds. Cowles' facilities for large-scale production of m-Toluic, o-Toluic and p-Toluic acids make it possible to produce specially formulated esters and metallic salts of the Toluics where commercial quantities are indicated.

Call Cowles to discuss it, today.

Cowles CHEMICAL COMPANY
Cleveland 20, Ohio

Tributyl Phosphate—Vitamin B_{12}

Tributyl phosphate, dms., c.l., works, lb. .52½- —
dms., l.c.l., same basis lb. .53½- —
tanks, same basis lb. .50 - —
Tributylamine dms., c.l., works lb. .67½- —
dms., l.c.l., same basis lb. .69 - —
tanks, same basis lb. .65 - —
Tributyrin dms. l.c.l. dlvd. lb. .69 - —
Trichloroacetic acid, tech., 300-lb. dms. c.l., f.o.b. works lb. .52 - —
USP, 100-lb dms., frt. equald lb. 1.25 - —
Trichlorobenzene dms c.l. frt alld E. lb. .15 - —
dms., l.c.l. frt alld E. lb. .16 - —
tanks, frt. alld E lb. 13¼- —
Trichlorobenzene prices in the West 1¾c. higher
1,1,1-Trichloroethane dms., c.l., dlvd. lb .13¼- —
dms., l.c.l., dlvd lb. .16 - —
tanks, dlvd lb. .12¼- —
1,1,2 Trichloroethane, dms., c.l., works lb. .15½- —
dms., l.c.l., works lb. .16¼- —
tanks, works lb. .13½- —
Trichloroethylene dms. c.l., or t.l., dlvd lb. .12½- —
dms., l.c.l., dlvd. lb. .14 - .14½
tanks, dlvd lb. .11¼- —
Trichloroisocyanuric acid dms., c.l., t.l., frt equald lb. 65 - —
dms. l.c.l. same basis lb 75 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., non-ret. dms., 1 dm. frt. equald kilo. 3.10 - —

Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .35 - —
dms., l.c.l., dlvd. lb. .36 - —
tanks, dlvd lb. .32½- —
Petroleum, dms., c.l., dlvd. lb. .35 - —
dms., l.c.l., dlvd. lb. .36 - —
tanks, dlvd. lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd, E lb. .22½- —
dms., l.c.l., dlvd, E lb. .24 - —
tanks, dlvd, E lb. .20 - —
Triethanolamine, dms., c.l., dlvd, E. lb. .24½- —
dms., l.c.l., same basis lb. .26 - —
tanks, same basis lb .22 - —
Triethanolamine tauryl sulfate, dms., c.l., t.l., frt. alld lb. .25½- —
dms., l.c.l., frt. alld. lb. .26½- —
tanks, frt. alld. lb. .24½- —
Triethylamine, dms., c.l., dlvd. E. lb. .50 - —
dms., l.c.l., same basis lb. .51½- —
tanks, same basis lb. .47½- —
Triethyl citrate, refd., tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .46¼- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .47¼- —
tanks frt. alld. E. of Denver, lb. .43¾- —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½- —
dms., l.c.l., dlvd. lb. .42 - —
tanks, dlvd. lb. .38 - —
Triethylene glycol, dms., c.l., dlvd. E lb. .21 - —

Triethylene glycol, dms., l.c.l., dlvd. E. lb. .22½- —
tanks, dlvd, E. lb. .18½- —
HP, tanks, dlvd. E. lb. .20 - —
Triethylenetetramine, dms., c.l., dlvd. E. lb. .48½- .48¾
dms., l.c.l., same basis lb. .50 - .50¼
tanks, same basis lb. .46 - —
Triisobutylene, tanks, dlvd. lb. .08 - —
Tri-isopropanolamine, dms., c.l., dlvd. E lb. .23¼- —
dms., l.c.l., dlvd. E. lb. .24¾- —
tanks, dlvd. E lb. .20¾- —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 - .305
tanks, frt. equald, 100% basis, lb. .26 - —
25-40% soln., dms., c.l., frt. equald, 100% basis lb. .35½- —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, 100% basis, frt. equald lb. .26 - —
Trimethylolpropane, dms., c.l., t.l., dlvd. E lb. .30½- —
dms., l.c.l., l.t.l., same basis lb. .31½- —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 - —
dms., l.c.l., works lb. .51½- —
Tripentaerythritol, ogs., c.l., t.l., dlvd. E lb. .34 - —
bgs., l.c.l., l.t.l., dlvd. E lb. .35 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .41½- —
bbls. l.c.l., frt. equald lb. .43½- —
Triphenylguanidine, bbls., works lb. .90 - —
Tripropylene, dms., c.l., dlvd. E gal. .44 - —
dms., l.c.l., same basis gal. .54 - —
tanks, same basis gal. .28 - —
Tripropylene glycol, dms., c.l., t.l., frt. alld. E lb. .20½- —
dms., l.c.l. l.t.l. frt. alld. E lb. .22 - —
tankcars and compartmented tankcars, frt. alld. E lb. .17½- —

Tripropylene, glycol, tankwagon and compartmented, tankwagon, 1,000 gals., min. frt. alld. E. lb. .18 - —
Tripropylene glycol prices 1c. per lb. higher in west.
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Trypophane, dms., 1 kilo, works, kilo.154.00 - —
Tung oil, dms., New York lb. .32 - .32½
tanks, imported lb. .30½- —
tanks, domestic, mills lb. .30 Nom.
Tungsten metal, powd., 2.0-2.5 microns, dms., works lb. 4.25 - —
Tungstic acid, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
dms., smaller lots, works lb. 2.45 - —
Turkey red, bbls., works lb. .62 - —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns., dms lb. .28 - .50
Tuscan red, bbls., frt. equald lb. .26 - .32
Tyrothricin, USP, 1 to 5 kilos gram. .50 - —

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. E. of Rockies lb. .33½- .38
Ultramarine blue, jobbing types, dry, bbls., same basis lb. .18 - .19
Regular types, dry bbls., same basis lb. .25 - .40½
Ultramarine blue prices 1c higher W. of Rockies.
Umber pigment, burnt, American, bgs., c.l., works lb. .07½- .07¾
bgs., l.c.l. works lb. .07¾- .08
turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N.Y. lb. .08¼- —
Raw, American, bgs. works lb. .07¾- .08¼
Turkey-type, bgs., works lb. .08½- .08¾
Undecylenic acid 55-gal dms., f.o.b. works lb. 1.28 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N indust. bgs., c.l., t.l., f.o.b. plant ton.100.00 - —
Urea, feed grade, c.l., t.l., f.o.b. plant ton.95.00 - —
45% N, agricultural, bgs., c.l. f.o.b. plant ton.91.25 - —
Bulk, c.l., t.l., same basis ton.85.25 - —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks, frt. equald ton.120.00 - —
37 grade, tanks, same basis ton.145.00 - —
Urethane, USP, dms., t.l., f.o.b., works lb. .65 - —
dms., l.t.l., same basis lb. .70 - —
Uvo-ursi leaves, bls. lb. .14 - .15

V

Valerian root, Belgian bgs. lb. .32 - —
Indian, bgs. lb. .25 - —
dl-Valine, dms., 1 kilo, works kilo.37.00 - —
Vanadium pentoxide, tech. dms., works lb. 1.38 - —
Vandyke brown, bbls., works lb. .09½- .12
Vanilla beans, Bourbon, tins lb. 6.75 - 7.00
Mexican cuts, tins lb. 7.50 - 7.70
whole, tins lb. 7.80 - 8.00
Vanillin ex lignin, 100-lb. fib. dms., 2,000-lb. lots or more lb. 3.00 - —
less than 2,000 lbs lb. 3.20 - 3.30
Venetian red, jobbing, bgs., works, lb. .0475- —
Venetian red, 20%, bgs., works lb. .0525- —
25%, bgs., works lb. .0575- —
30%, bgs., works lb. .06 - —
35%, bgs., works lb. .0625- —
40%, bgs., works lb. .0675- —
Vetiver oil, Bourbon, cns lb.17.00 -17.25
Haitian, cns. lb.10.00 -12.00
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 - 4.98
Tungstated, PTMA, 250-lb. bbls., dlvd. E. of Rockies lb. 5.55 - —
Victoria blue toner, bbls., prices 1c. higher W of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd lb. .1810- —
55-gal. dms., l.c.l., dlvd lb. .1960- —
tanks, dlvd. lb. .1560- —
tanktrucks less than 4,000 gal., dlvd lb. .1610- —
Vinyl n-butyl ether, tech., dms., l.c.l., works lb. .50 - —
Vinyl chloride monomer, tanks, works, min. frt. equald E. lb. .0750- —
Vinyl ether, USP, anesthesia, bots., 50cc., hospitals bot. 1.12 - —
bots., 75cc., hospitals bot 1.56 - —
Vinyl ethyl ether, tech., dms., c.l., works lb. .30¼- —
dms., l.c.l., works lb. .31 - —
tanks, works lb. .28¼- —
Vinyl propionate monomer, dms., c.l., dlvd lb. .49 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb. 1.20 - —
1 to 9 dms., works lb. 1.35 - —
tanks, works lb. 1.15 - —
Vinyltoluene, dms., c.l., f.o.b., dest. frt. paid, Zone 1 lb. .16½- —
dms., l.c.l., same basis lb. .18½- —
tanks, same basis lb. .14 - —
Zone 2 prices are 1c. per lb. higher. Zone 1 is East of Rockies, Zone 2 is West of Rockies.
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. .02½- —
Virginia type red, bbls., works lb. 1.40 - —
Vitamin A acetate, dry, 500,000 units per gram, kilo lots kilo.47.50 - —
325,000 units per gram, same basis kilo.30.88 - —
250,000 units per gram, same basis kilo.23.75 - —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units. .07 - —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .07 - —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins gram.45.00 - —
Vitamin B_{12} 0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo, dms., gram. .57 - —
Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on resin, 100 and 500-gram bots, 1-5 kilo dms. gram. .57 - —

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Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B_{12} activity	gram	52.00	—
0.1% trituration of cryst. B_{12} with dicalcium phosphate or mannitol, 1-10 kilo	kilo	52.00	—
Vitamin B_{12}, 0.1% trituration of cyanocobalmin, USP, with dicalcium phosphate or mannitol	gm.	52.00	—
USP solution of cyanocobalamin (5,000 micrograms per cc.), 5-gram bots	gram	52.00	—
Vitamin B_{12}, 0.1% cobalamin concentrate, NF, adsorbed on resin, 500-gram bots., 1-5 kilo dms., frt. alld.	gram	.57	—
Vitamin B_{12}, 0.1% cobalamin concentrate in gelatin, 1-10 kilo dms., frt. alld.	gram	.57	—
Vitamin C (see Ascorbic acid).			
Vitamin D, (see Codliver and Fishliver oils, Calciferol and Viosterol)			
Vitamin D, dry, 850,000 units per gram, kilo lots	kilo	42.50	—
850,000 units per gram less than kilo lots	kilo	45.00	—
Vitamin E (see a-Tocopherol and Wheat germ oil).			
Vitamin H (see Biotin).			
Vitamin K, active (see Menadione).			
Vitamin K_1, 25-gram lots	gram	4.50	—
Violet methyl toner (see Methyl violet toner).			
VM&P naphtha (see Naphtha, VM&P petroleum).			

W

Wahoo root bark, bls	lb.	2.10	—
Warfarin, 0.5% dms., 50-lb. lots, dlvd	lb.	1.95	—
dms., 25-49-lb lots, New York or Chicago	lb.	2.05	—
dms., 5-24-lb lots, New York or Chicago	lb.	2.15	—
Watchung-type reds., bbls	lb.	1.95	—

WAXES
Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms.	gal.	12.25	—
White lead (see Lead, white).			
White mineral oil (see Mineral oil, white).			
White pine bark, rossed, bls.	lb.	.21	.29
White precipitate, USP, powd., dms., 100 lbs. f.o.b. works	lb.	5.50	—
Whiting (see Calcium carbonate)			
Wild cherry bark, thin, nat., bls.	lb.	.22	—
Wintergreen oil, USP nat. northern, cns	lb.	6.35	17.50
USP, nat. southern cns	lb.	3.75	7.00
Wintergreen oil, syn. (see Methyl salicylate).			
Witch hazel bark, bls	lb.	.20	.25
Witch hazel leaves, bls.	lb.	.35	.40
Wollastonite, fine paint grade, bgs., c.l., works	ton.	41.00	—
bgs., l.c.l., ex whse	ton.	51.00	—
medium paint grade, bgs., c.l., works	ton.	39.00	—
bgs., l.c.l., ex whse	ton.	39.00	—
Wood alcohol (see Methanol).			
Wood oil (see Tung oil).			
Woolfat crude (see Degras).			
Woolfat USP (see Lanolin).			
Wormseed Levant bgs	lb.	2.50	—
Wormseed oil (see Chenopodium oil NF).			
Wormwood oil, cns	lb.	4.75	—

X

Xylene, coaltar, indust., tanks, works:			
Bethlehem, Pa.	gal.	.29	—
Birmingham dist.	gal.	.29	—
Chicago dist.	gal.	.28½	—
Cleveland dist.	gal.	.29	—
Geneva, Utah	gal.	.29	—
Johnstown, Pa.	gal.	.29	—
Lackawanna, N.Y.	gal.	.29½	—
Lone Star, Tex.	gal.	.27	—
Lorain, Ohio	gal.	.29	—
Middletown, Ohio	gal.	.30	—
Minnequa, Col.	gal.	.29	—
Philadelphia dist.	gal.	.29	—
Pittsburgh dist.	gal.	.29	—
Sparrows Point, Md.	gal.	.29	—
Terre Haute, Ind.	gal.	.29	—
Youngstown, Ohio	gal.	.29	—
Xylene, petroleum, indust., tanks, f.o.b. works:			
Bayonne, N. J.	gal.	.29	—
Baytown, Tex.	gal.	.27	—
Charleston, S. C.	gal.	.29	—
Chicago, Ill.	gal.	.28½	—
Detroit, Mich., dlvd.	gal.	.27½	.29
Houston, Tex.	gal.	.27	—
Philadelphia, Pa.	gal.	.29	—
Providence, R. I.	gal.	.30	—
Sewell's Point, Va.	gal.	.28	—
Wood River, Ill.	gal.	.28½	—
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif.	lb.	.21	—
dms., l.c.l., f.o.b., Richmond, Calif.	lb.	.22	—
tanks, frt. alld.	lb.	.19	—
o-Xylene, dms., c.l., works	lb.	.08	—
dms., l.c.l., works	lb.	.09	—
tanks, works	lb.	.06	.06½
p-Xylene, dms., c.l., works	lb.	.20	—
dms., l.c.l., works	lb.	.21	—
tanks, frt. alld.	lb.	.1645	—
Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works, frt. equald	lb.	.23	—
56°-58°C., m.p., dms., l.c.l., works, frt. equald	lb.	.33	—
60°-62°C., m.p., dms., l.c.l., same basis	lb.	.40	—
Xylenol fraction b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis	gal.	1.25	—
dms., l.c.l., same basis	gal.	1.30	—
tanks, same basis	gal.	1.05	—
b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis	gal.	1.35	—
dms., l.c.l., same basis	gal.	1.40	—
2,4-Xylidine, tech., dms., frt. alld.	lb.	1.15	—
2,5-Xylidine, tech., dms., frt. alld.	lb.	1.20	—
Xylidines, mixed o-m-p, dms., c.l., or t.l., works	lb.	.39	—
dms., l.c.l., same basis	lb.	.40	—
tanks, same basis	lb.	.38	—

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns.	lb.	2.15	3.05
Yeast, brewers, debittered, USP XV, Saccharomyces dlvd	lb.	.27	—
Yeast, primary, USP XV, 150 meg. B_1 per gram, 100-lb. dms	lb.	.47	—
USP XV, 270 mcg. B_1 per gram, 100-lb dms	lb.	.52	—
primary, USP, XV, 300 meg., B_1 per gram, 100-lb. dms	lb.	.56	—
Yeast, primary, USP XV, 900 meg. B_1 per gram, 199-lb. dms.	lb.	.60	—
Torula USP dlvd	lb.	.18	—

YELLOW PIGMENTS
Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow

Yerba santa leaves, bls	lb.	.40	.45
Ylang Ylang oil, Bourbon, bots	lb.	7.00	22.00
extra, bots	lb.	24.00	33.00
Yohimbine hydrochloride bots., tins	oz.	3.75	4.25

Z

Zein, 50-lb. bgs., c.l., t.l., f.o.b. works	lb.	.37	—
50-lb. bgs., smaller lots, f.o.b. works	lb.	.41	.44
Zinc acetate, NF, VIII, dms	lb.	.53	—
Tech., dms., l.t.l., works	lb.	.2950	—
Zinc borate, bgs. 1,000 lbs or more, works	lb.	.25	—
bgs., less than 1,000 lbs., same basis	lb.	.27	—
Zinc chloride, NF, gran., dms	lb.	.42	—
NF, precip., powd., dms	lb.	.26	—
Tech., soln. 50%, dms., c.l., works	100 lbs.	5.80	—
dms., t.c.l., works	100 lbs.	6.40	—
tanks, works	100 lbs.	5.15	—
fused, dms., c.l., works	100 lbs.	10.70	—
dms., t.c.l. works	100 lbs.	11.20	—
Tech., gran., fib. dms., c.l., work	100 lbs.	11.43	—
fib. dms., t.c.l. works	100 lbs.	11.95	—

Vitamin B_{12}—Zinc Resinate

Zinc chromate bbls., dlvd.	lb.	.29	—
Basic bbls. dlvd.	lb.	.34	—
Zinc cyanide dms., 1,000-lb. lots or more, works	lb.	.55	—
dms., smaller lots, works	lb.	.57	—
Zinc dust coml. bbls., c.l., works	lb.	.16	—
Pigment, bbls., c.l., works	lb.	.15½	—
bbls., l.c.l., works	lb.	.17¼	—
Zinc fluoride, bbls., works	lb.	.49	.50
Zinc hydrosulfite, dms., c.l., frt. alld	lb.	.21½	—
dms. t.c.l. frt. alld.	lb.	.23½	—
Zinc metal, prime western, slabs, E. St. Louis	lb.	.11½	—
Prime western slabs, New York	lb.	.12	—
Zinc naphthenate liq. 8% Zn., dms., frt. alld	lb.	.27	—
10% Zn., dms., frt. alld.	lb.	.33	—
Zinc nitrate, tech., flake, 100-lb. fib. dms., l.c.l.	lb.	.16½	—
300-lb. fib. dms, l.c.l.	lb.	.14½	—
300-lb. fib. dms., c.l.	lb.	.14	—
Zinc oxide pigment, American process, lead-free bgs., c.l., f.o.b. works	lb.	.12½	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.13	—
bgs., l.c.l., smaller lots, same basis	lb.	.13½	—
Zinc oxide, leaded, 35%, bgs., c.l., mills, f.o.b. works	lb.	.14	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.14½	—
Zinc oxide, pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis	lb.	.14½	—
Zinc oxide, pigment, French process, green seal, bgs., c.l., f.o.b. works	lb.	.14½	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.15	—
Zinc oxide, French process, green seal, bgs., l.c.l., smaller lots, same basis	lb.	.14½	—
red seal, bgs., c.l., same basis	lb.	.14	—
Zinc oxide, French process, white seal, bgs., l.c.l., 10 tons or more, same basis	lb.	.15	—
bgs., l.c.l., smaller lots same basis	lb.	.15½	—
same basis	lb.	.15¾	—
Zinc oxide, white seal, bgs., c.l., same basis	lb.	.14¾	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.15¼	—
bgs., l.c.l., smaller lots,			
Zinc oxide, USP, 50 lb.-dms., c.l., frt. alld.	lb.	.15¾	—
50 lb.-dms., l.c.l., 10 tons or more, same basis	lb.	.16¼	—
50 lb.-dms., l.c.l., smaller lots, same basis	lb.	.16¾	—
Zinc phenolsulfonate, NF, gran., dms	lb.	.45	.46
NF, powd., dms.	lb.	.48	.49
Zinc resinate, precip. 7.2-7.6% Zn., dms., frt. alld	lb.	.45	—

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Zinc Silicofluoride—Zirconium Oxychloride

Zinc silicofluoride, dms., works	lb.	.12½-	.14
Zinc stearate, USP, ctns., c.l.	lb.	.41	—
	lb.	.41	—
ctns., l.c.l.	lb.	.42	.46
Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l. dlvd. E	100 lbs.	8.00	—
bgs., l.c.l., dlvd. E	100 lbs.	9.00	—
Zinc sulfate in bbls 40c higher			
Zinc undecylenate, 75-lb fib. dms., f.o.b. works	lb.	2.04	—
Zinc, yellow (see Zinc chromate)			
Zinc-ammonium chloride, bgs., c.l., works	100 lbs.	10.25	—
bbls., c.l., works	100 lbs.	10.85	—
bbls., l.c.l., works	100 lbs.	11.35	—
Zinc-formaldehyde sulfoxylate, basic, 300-lb dms., frt. alld	lb.	.26	—
Normal, 250-lb dms., frt. alld	lb.	.55	—
bgs., 5 tons to c.l., works	lb.	.03⅜-	—
Zircon (G) gran., bgs., 5 tons to c.l., works	lb.	.03⅜-	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04	—
bgs., smaller lots, works	lb.	.06½-	—
Zircon (G) milled, bgs., c.l., works	lb.	.04½-	—
bgs., 5 tons to c.l., works	lb.	.04⅜-	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04⅝-	—
bgs., 500-1,999-lb. lots, works	lb.	.07½-	—
Zircon (G) in barrels 1c. higher.			
Zirconium acetate soln., 13% ZrO_2, dms., c.l., 30,000 lbs. min., works	lb.	.23	—
Zirconium hydride, powd., electronic grade, dms., works	lb.	14.00	15.00
Zirconium oxide, CP, white, grd., bbls. or bgs., works	lb.	1.50	—
Electric-fused lump, bgs., 500 to 1,999-lb. lots, works	lb.	.48½-	—
bgs., smaller lots, works	lb.	.51	—
milled, bgs., c.l., works	lb.	.62	—
bgs., 5-ton lots, works	lb.	.62½-	—
bgs., 1-ton to 9,999-lb. lots, works	lb.	.63½-	—
bgs., 500 to 1,999-lb. lots, works	lb.	.64	—
bgs., smaller lots, works	lb.	.66	—
Glass polishing grade, 94-97% ZrO_2, bgs., works	lb.	.55	.65
Opacifier grade, 85-90% ZrO_2, bgs.,	lb.	.27	.50
Stabilized oxide, 91% ZrO_2, milled, bgs	lb.	.62	.85
Zirconium oxychloride, cryst., etns., 5-ton lots, works	lb.	.37½-	—

Carbide Plays It Safe

—Continued from page 3

Tire includes the right to grant sublicenses to its customers.

"Carbide decided to enter into the agreement at this time," says vice-president John A. Field, "to assure the continuing growth of the urethane foam industry. Carbide will not require payment of royalties by its customers."

The Price patent relates to urethane products made from polyethers which are adducts of alkylene oxides with polyhydric alcohols having fewer than seven carbon atoms and three to six hydroxyl groups.

"Niax" triols supplied by Carbide for manufacture are of the type recommended by Dr. Price in his patent. The purchase settles any question of contributory infringement by Carbide. At the same time, Dr. Price's work is properly recognized.

Dr. Price did most of his work at Notre Dame. UCC has been advised by General Tire that its payment will go in part to Dr. Price, to Notre Dame, and will reimburse General Tire for its support of research and other expenses. General will continue to act as the agent of Notre Dame in licensing and patent enforcement.

Chemical 'Missionary Work' Aids the US

—Continued from page 7

theme of holding up an image of a company—what it is, what it does, what it promises to do—is an investment that will continue to pay dividends far into the future."

The speaker then concluded with some cold facts on images, pointing out that:

"Building the corporate character has one final horizon, perhaps the most important point of all. This is its relation with the rest of society.

"Investment in corporate image advertising is perhaps just as important as investment in plant and equipment and in research and development. All three phases of investment are concerned with the vital objective of all corporations—a greater profit over the long run."

The picture of an individual company, Hooker Chemical Corporation, was presented by R. Wolcott Hooker, senior vice-president of the concern. After describing his concern's early history and present status, he went on to tell these future plans:

". . . we have a general development department organized to promote growth on a corporate basis within the continental boundaries of the United States. This growth contemplates new plants, new processes and mergers from time to time as may be appropriate with other companies. We have . . . recently established an international division, which is actively considering how, where and with whom we may profitably expand our operations."

The need for making fabrics fire resistant, and the part chemicals will play in the effort, was described by Dr. W. George Parks, chairman of the chemistry department of the University of Rhode Island.

Dr. Parks pointed out:

"A durable fire resistant treatment for cotton fabrics is of utmost importance for many civilian and military applications. During the past ten years, many laboratories have conducted research aimed at the development of the required durable finish for cotton cloth.

"The following chemical compounds are commonly found in durable fire-resistant finishes: vinyl chloride; antimony oxide; aminophosphate compounds (phosphoric acid treated with ammonia, urea, guanidine, dicyandiamide or other amino compound); tetrakis (hydroxymethyl) phosphonium chloride (THPC); tris (1-aziridinyl) phosphine oxide (APO)."

The APO finishes, however, are not commonly found on commercial fabrics, Dr. Parks explained.

Just What Is Ink-Making?

Herbert B. Woodman, president of Interchemical Corporation, a big name in the ink business contributed a paper which was read by L. C. Herkness, president and general manager of Interchemical-Europe SA. In his offering Mr. Woodman averred that he didn't quite know whether ink-making should be classified as a part of the chemical business. The paper put it this way:

"We are formulators or compounders of finished chemicals for specific purposes, and our products are sold entirely outside the chemical industry. In the United States we feel that the most accurate description of our category is that of 'chemical processors.'

"Printing is a marriage of mechanics and chemistry," Mr. Woodman's paper went on.

"The combination of developing technology in the graphic arts and revolutionary marketing technics in Europe, added to the strong economic forces resulting from the formation of the Common Market, indicate a period of continued growth and challenge to the highly-specialized printing ink portion of the chemical industry."

M. C. Carpenter, of Dow Chemical International, presented a paper for Dr. N. E. Van Stone, of Sherwin-Williams Company, entitled "Present Trends in Latex Paints," in which it was pointed out:

"This year has seen considerable expansion of manufacturing units for raw materials used for various latices throughout the world, and in some places, additional facilities for the production of the latices themselves.

"This increase in manufacturing units for the raw materials for latices has been caused by the continued increase in demand for various polymers and copolymers, rubber and for moulding and sheeting purposes, as well as for the production of latices or solvent type polymers or copolymers for various industries.

"The increased market for latices is in many fields other than paint and protective coatings—such fields as paper, floor coverings, textiles, waxes, floor polishes, adhesives and, of course, the ever-expanding rubber industry in all parts of the world.

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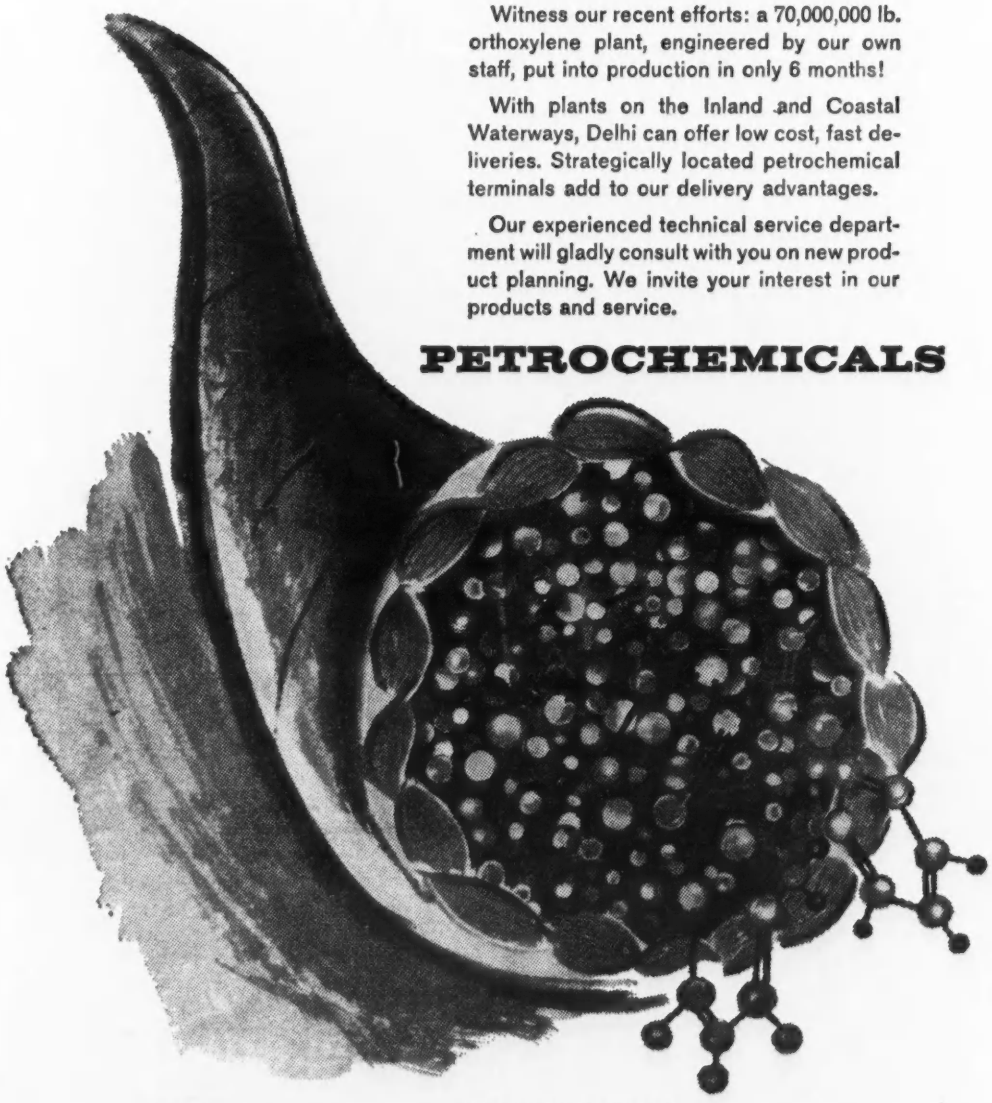

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Sodium Nitrate, Treating Industrial and Domestic Wastes (MC-397-659)

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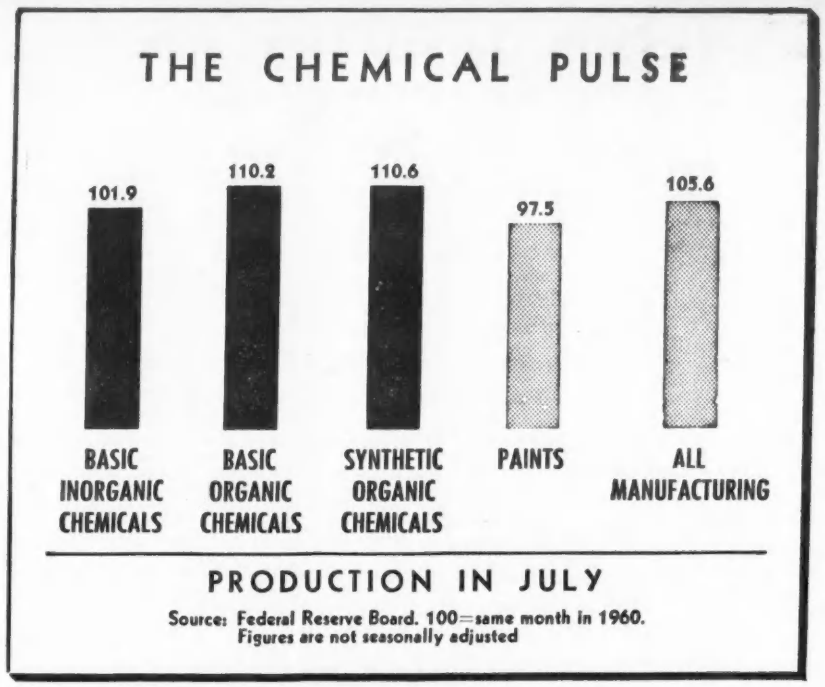

Congessional Chemistry

The chemical analysis of the recently adjourned session of the Congress of the United States reported on page 8 last week is not indicative of a satisfactory degree of national chemical progress. It does not, however, make it anything like clear why or where the lag exists. That is something that calls strongly for study—industrially, commercially and professionally—with the objective of teaching congress what it should know, and getting it to make proper use of that knowledge. That is a political job, not a chemical one. It must be done by industrial politicians.

That job should be started right now, in order that next year's promised battleground may be given something approaching a balance in all respects between the opposing forces. The place for the starting and the doing of that job is in the home community of everyone who must be properly lined up so that what is wanted will be attained. The fact that 1962 will be an election year should be an important factor in the motivating and the operating of those who want to get what they should have out of the pending congressional promises.

There is no available information on just how well—if at all—the chemical folk in any congressman's community are equipped to do a good job of political battling. The national organizations of the industry should look into that condition—and do whatever the investigation has indicated to be required for adequate preparation in all respects with reference to who's who, what's what and how's how, with particular consideration for those factors in connection with the sixteen occasions on which there was no action on a pending bill.

The chemical industry will be largely stripped of its prestige if it bows to the defeats that are threatened in the tally and the promises recorded on page 3 last week.

US Investment Elsewhere

Judging from what was said recently by the president of a US corporation that is the world's biggest operator in the petroleum industry, there is a feeling among the governments and the people of Latin America that the investment of US or other foreign private capital in their countries "in some obscure way represents economic imperialism and is a threat to national sovereignity." The US industrialist was speaking at a meeting of the American Chamber of Commerce in Buenos Aires. (For the sake of really friendly neighborly relations, should the first name of that organization be United States, or is it fully American?)

The visiting industrial made it quite clear that there is no basis for such feeling or fear with reference to investment by private enterprise, which, he pointed out with examples, has been widely beneficial to Latin-American governments and their peoples.

At somewhat nearly the same time, the Postmaster-General of Canada was telling the National Hardwood Lumber Association, convened in New York, that his government had no intention of resorting to "punitive measures" against US capital, which controls 44 percent of all Canadian industry. However, as he put it, "business decisions under US investment have not always been based on the dictates of Canada's long-run interests," so his country is carrying out a policy of "Canadianization" and would encourage Canadian incorporation of US firms operating there and foster the progressive participation of Canadian investment in those enterprises.

As was said here last week with reference to business as an international affair, US investment in other countries calls for the satisfactory meeting, knowing and serving of their peoples.

Business Should Help

The public school system of this country needs improvement in several respects. It should not be required to depend upon the federal government for subsidization—or call it what you will—in order that it will more adequately meet the needs of today for its output.

There is a growing opinion among economists that the most serious need in connection with the problem of unemployment is that for the correction of the lack of employment for those looking for their first jobs, as they come out of school.

Higher educators have been quoted as saying that schools are being designed from the "human standpoint" (in air conditioning and other comforts) with an objective of psychological relaxation and working incentives. That leaves the general system where it is insofar as fitting the students for jobs is concerned.

But, there has been some notable progress in technical and vocational schools. That is where business can and should step in and help.

Two roads are available for such approaching. One of them is that which puts a business representative, managerial, technical or clerical, into the school program for occasional discourse on what job-getters must know and a review now and then on what has been learned therefrom. The other road should be an openway to the employment of teachers during the school-vacation period at such work as appropriate study of existing conditions has indicated to be needed.

Meetings

American Coke & Coal Chemicals Institute, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., October 23-24.

American Council of Independent Laboratories, annual meeting, Sheraton hotel, Philadelphia, October 10-14.

Association of American Soap & Glycerine Producers, annual convention, Waldorf-Astoria hotel, New York, January 24-26.

Chemical Buyers Group of National Association of Purchasing Agents, annual fall conference, Chase hotel, St. Louis, Mo., October 11.

Chemical Market Research Association, Mark Hopkins hotel, San Francisco, November 28-December 1.

Chemical Specialties Manufacturers Association, annual meeting, Roosevelt hotel, New York, December 4-6.

Commercial Chemical Development Association, fall meeting, Palmer House, Chicago, October 18-19.

Drug, Chemical & Allied Trades Committee of Young Men's Board of Trade, annual luncheon, Commodore hotel, New York, October 31.

Federation of Societies for Paint Technology, annual meeting, Shoreham and Sheraton-Park hotels, Washington, D. C., November 2-4.

Industrial Hygiene Foundation, annual meeting, Mellon Institute, Pittsburgh, Pa., October 25-26.

Manufacturing Chemists' Association, semi-annual meeting and midyear conference, Commodore hotel, New York, November 21.

National Agricultural Chemicals Association, annual meeting, The Homestead, Hot Springs, Va., October 29-November 1.

National Paint, Varnish & Lacquer Association, annual meeting, Statler-Hilton hotel, Washington, D. C., October 30-November 1.

National Wholesale Druggists' Association, annual meeting, Americana hotel, Bal Harbour, Fla., October 14-19.

Packaging Institute, national packaging forum, Biltmore hotel, New York, October 18-20.

Salesmen's Association of the American Chemical Industry, annual meeting, Roosevelt hotel, New York, October 24; Christmas party, Waldorf-Astoria hotel, New York, December 13.

Society of Chemical Industry, American section, chemical industry medal dinner, Waldorf-Astoria hotel, New York, October 13.

Society of the Plastics Industry, annual New England Section conference, Wentworth-by-the-Sea, Portsmouth, N. H., October 12-13.

Synthetic Organic Chemical Manufacturers Association, annual customs seminar, Roosevelt hotel New York, October 9-10; monthly luncheon meeting, Roosevelt hotel, New York, October 10.

Washington Talks It Over

DuPont Tax Bill Finds Congress Up to Some Strange Antics: A Postponement That May Turn Out To Be a Serious Blow to Those Who Had Hopes of Seeing the Relief Measure Go Through.

By Ralph L. Cherry
Washington Editor

Congress does some strange things sometimes, and not the least last session was its action in putting off until next year the decision it was ready to make on the duPont stockholders' tax relief bill.

Every session seems to wind up on a note of frustration for some group, pressing for this or that piece of legislation. This time the senate members, who had been fighting for months for the relief bill, were the victims.

As it turns out now, their willingness to give in to the little band of critics who wanted to forestall action and put the bill over until next session may be a serious mistake, likely to do untold damage to their cause.

The reason it may be so is this: When the senate does get around to taking up the bill again in January, the District Court in Chicago may have already ruled on the divestiture plan proposed by the duPont company. In this event, the argument may well be raised that the relief bill amounts to retroactive tax legislation.

This could be quite significant in the light of what President Kennedy had to say recently on the matter of retroactive tax relief. In signing a bill dealing with depletion allowances for the mining and manufacture of certain clay products, the President commented:

"There is a basic policy against the retroactive amendments to the tax laws."

"My approval of this bill [HR 7057 on clay products] should not be viewed as establishing a precedent for the enactment of similar legislation for other mineral industries.

"Nor does my decision indicate any willingness to approve retroactive legislation which is applicable to any particular industry unless very unusual circumstances exist.

"There is always pending before congress a large number of retroactive measures which would create substantial administrative problems, loss of revenue and discrimination between taxpayers.

"Therefore, approval of any one of these measures must be premised upon peculiar circumstances justifying departure from the fundamental policy against this special type of legislation."

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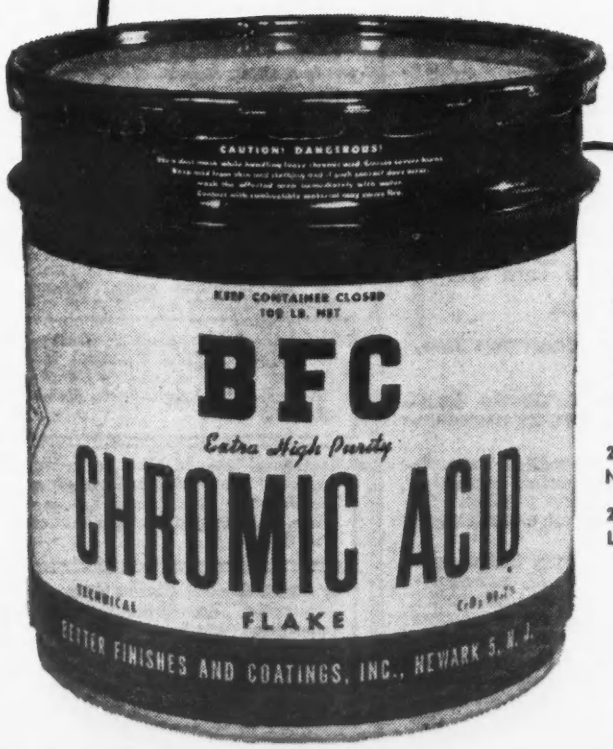

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Heavy Chemicals

Sodium, Today's 'Also Ran,' Has High Hopes for Long-Term Growth

Dogged by bad luck, sodium is perennially the material which almost bagged a market. Any hope now to soak up the metal's flood-tide overcapacity rests with the long-term future, trade sources confess. Among recent disappointments, a bright future in dibasic acids has been clouded by the formidable competition of adipic acid for the synthetic lubricant market. Similarly, desulfurization of light oils and naphthalene is being rapidly scaled down in volume potential because of the growing dominance of petroleum-based products.

Earlier, the government ditched sodium borohydride in its exotic fuels program and terminated stockpiling of titanium metal, for which sodium is a reducing agent.

To top it all, a major soap maker, which had been taking 40 million pounds of sodium yearly for reduction of coconut oil to alcohol, two years ago switched to high-pressure hydrogenation.

Thus production of sodium dwindled from 233 million pounds in 1958 to 225 million in '59 and only 215 million in '60. Outlook for 1961 is 225 million pounds, reflecting an anticipated gain in tetraethyl lead production. Meanwhile, a towering sodium capacity of 400 million pounds annually stays as is.

TEL Still Underpins Market

TEL continues as sodium's mainstay, taking about 170 million pounds annually. But here, too, market ideas are being scaled down, though not drastically.

Minimizing the growth potential of TEL is the success of compact cars, and the current introduction of medium size cars also using regular gasoline. And, ominously, price wars among refiners have led to cost-cutting wars, prompting some companies to consider upgrading gas at the refinery rather than using TEL.

Offsetting these factors is the increased consumption of gasoline generally, a result of the two-car-per-family trend. But this will not suffice, observers say, to spur TEL to the 5-8 percent growth rate predicted for it.

Before the advent of petroleum naphthalene, sodium producers had high hopes for a multi-million-pound outlet in the desulfuriaztion of cokeoven products.

Suddenly, 400 million pounds of high-purity petroleum napthalene capacity was slated for construction, and coaltar became a secondary source of napthalene as well as light oils.

There is still one bright spot in this picture, though. Whereas before there was no real pressure on cokeoven operators to upgrade their products, the availability of high-purity oil derivatives now makes it mandatory, some observers feel.

Price Cut Is No Answer

An attempt to sidestep the problem by selling cokeoven materials at a lower price won't work, it's felt, because of an anticipated over-supply of oil derivatives, forcing the oil men to meet whatever price their competitors post.

Right now one sodium producer reports it is working closely with several cokeoven operators, but nothing big has broken yet.

Other areas being explored include high-energy fuels and atomic power units. Various boranes have replaced borohydride in the government's fuels program, and one defense contractor is reportedly turning out limited amounts of pentaborane.

Several atomic energy plants using sodium as a coolant have been placed in operation, each taking between eight and fifteen tankcars of sodium. However, this is a one-shot proposition, replacement needs being negligible.

More skepticism than enthusiasm greets talk of a resurgence for sodium borohydride, but one producer is pressing forward with plans to open up the paper and pulp market. This would mean a multi-million-pound tonnage.

Recently the company inked a research pact for paper and pulp uses with a Swedish industrial giant, and just two weeks ago it teamed up with a German firm whose lower-cost borohydride has been filling the major portion of US requirements.

Consensus among market observers is that a pay-off in any of these applications lies well in the future. For the short run, it's felt that unless relief comes from an as yet unexplored or at least unpublicized end-use, about 40 percent of the industry's capacity will remain under wraps.

Price Trends

Advanced
Calcium Silicate, ½c. per lb.
Sodium Perborate, ½c. per lb.

Reduced
Tin metal, 1c. per lb.
Salts, ½c. to ¾c. per lb.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Oct. 7, 1960
106.63	106.63	106.63	106.88

For Current Prices See Page 9

Paper Production Lower

The American Paper & Pulp Association reported paper production for the week ended Sept. 30 at 93.5 percent of theoretical capacity, as compared with the revised figure of 93.2 percent for the previous week and 95.5 percent for the corresponding week of last year.

Acids

Boric—Sales activity is in full swing, reports one producer, and he cites the renewed demands of porcelain and glass fiber makers. Bulk prices of boric are steady at long standing levels.

Hydrochloric—Spurred by chemical and steel output boosts, the acid is in the best form seen since the Spring of 1960, one source said last week. Unchanged, though, are prices on the east coast, troubled by travail of competition.

Hydrofluoric—Captive and government uses remain the kingpin of this market. Moving up seasonally in the captive category is output of fluorocarbons and aluminum. Busy too has been the government with its uranium fluoride requirements, as witness recent procurement announcements.

Nitric—Fertilizer makers have turned down the production throttle for what is expected to be a lively season. Nitric merchants are enjoying good call from chemical and steel making customers.

Sulfuric—Steel production continued its steady uptrend during the week ended September 30 as it moved to 2,131,000 tons from the previous week's 2,114,000 tons. Figures are from the American Iron & Steel Institute.

Bases and Salts

Caustic Soda—A normally uptrending sales curve this time of the year lends a steady tone to prices, sources in the industry report. Inorganic chemical accounts are showing renewed vigor, and the paper industry is back in harness after a slow summer.

Chlorine—Keeping this material in good tone while the paper industry lagged was a sharp increase in consumption for water and sewage treatment during the summer. Now at the vanguard of demand are vinyl chloride and other industrial organic outlets.

Calcium Silicate—Effective October 1, prices of hydrated calcium silicate were advanced ½c. a pound to a level of 6½c.

Lithium Hydroxide—Prices remain at 54c. a pound for carlots and 58c. for smaller shipments, reflecting the recent 5c. a pound slash.

Sodium Perborate—Up, on October 1, went prices by ½c. a pound, marking an effort by producers to recoup part of the 3½c. slashed off tabs early in the year under duress of imports.

Soda Ash—Early reports from glass makers show the usual pattern of good

Heavy Chemicals

business and poor profits. For soda ash producers, this situation is similarly both good and bad. It means a continuing high level of ash consumption, but strong pressure against needed price advances, sources in the trade say.

Nonferrous Metals

Aluminum—Primary production in July totaled 164,732 tons, up 3.5 percent from June, the Bureau of Mines reports. But shipments dropped 6 percent below June though holding 8 percent above July a year ago, the agency notes. Month-end stocks increased for the first time since January and were up nearly 4 percent from the end of June.

Magnesium—Shipments of magnesium mill products during July amounted to 1,743,000 pounds net, Business & Defense Services Administration reports. This represents an advance of 3 percent over shipments of 1,700,000 pounds in June, BDSA notes.

Mercury—Production of mercury in the US during the second quarter rose 7 percent to 8,700 flasks, the Mines Bureau reports. Due to withdrawal from service of a mercury boiler, output of secondary mercury tripled to 3,970 flasks.

Price per flask averaged $203.12 during the quarter, down from $207.69 the previous period, mines notes.

Silver—Price has been long unchanged at 91⅜c. a troy ounce, spot.

Tin—Straits metal closed 1c. lower at $1.21 a pound, spot, Friday.

Titanium—Production of titanium mill products in July totaled 727,937 pounds, consisting of 172,015 pounds of sheet, plate, strip, pipe and extrusions; 467,695 pounds of forging and extrusion billet, and 88,227 pounds of rod, bar and wire. Figures are from Business & Defense Services Administration.

Heavy Chemical Briefs

DOW TO HONOLULU: Dow Chemical Company has opened a district sales office at Honolulu to serve the Hawaiian Islands. Donald J. LeGassey of Dow's Seattle, Wash., office has been named district sales manager. Topping Dow's product roster for the area are agricultural chemicals, general chemicals and plastics.

FERROCHROME TABS UP: Prices of ferrochrome alloys will be lifted October 15 by Union Carbide Metals Company. Increases will average less than 2c. a pound. The boost is necessitated by a currently poor "cost-price relationship," Carbide says.

GSA OFFERS TIN: In its fifth offering of surplus government tin in recent week, GSA is seeking bids on 1,000 long tons of "Longhorn" brand metal. The new offering is in lots of ten tons each. The tin is from the inventory formerly held by the Federal Facilities Corporation.

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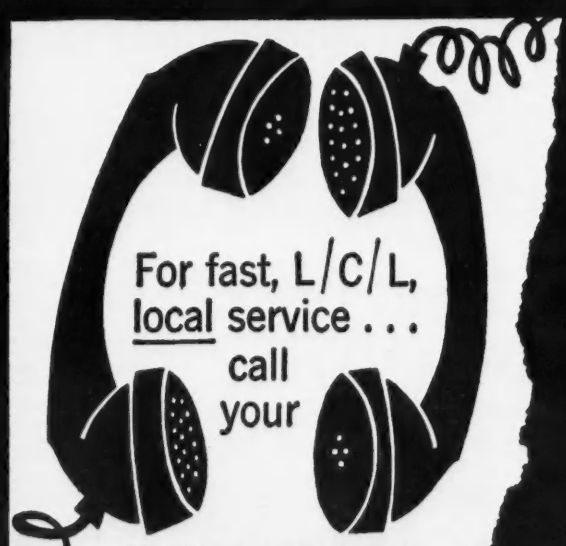

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Kefauver Crusade: Hruska Hoists Storm Signals

—Continued from page 3

trical equipment hearings at which top officials of the electrical companies denied knowledge of the price-fixing activities of their subordinates.

Also drawn into the picture is the antitrust drive against identical bidding and price-fixing in the chemical industry now under way.

Mr. Hruska's point is that under the bill sponsored by Mr. Kefauver all that the prosecutor needs to have by way of evidence to bring criminal antitrust charges against officers and directors of a corporation is a "reasonable cause to believe" that violations of the law by subordinates were with the knowledge of their superiors.

He points out that "reasonable cause" is a phrase subject to the vagaries of judicial judgment. He adds that there should be an understanding that no officer or executive of a corporation can be held to be guilty by association.

He says that it is impossible for corporation officers to have knowledge of all the activities of their subordinates and, while they can lay down rules, they have no assurances that they will be followed.

Dixon Disputes Hruska

Paul Rand Dixon, chairman of the FTC, disputes the points made by Sen. Hruska, contending that even though an action can be brought on the basis of a "reasonable cause to believe" that the law is being violated, it would still be up to the prosecutor to prove "beyond a reasonable doubt'" that a violation has occurred.

He feels that certainly someone in a corporation should be responsible for the acts of the corporation.

Similar arguments are made by Sen. Hruska against S 2225, which deals with identical bidding. The bill requires corporations that have been convicted of violating the antitrust laws within the previous two years to accompany their bids with an affidavit certifying that the prices quoted are not the result of collusion.

Sen. Hruska wonders how a sales manager or other officer of a large corporation can safely sign such an affidavit without running the risks of becoming an innocent victim of someone else's improper acts.

He notes in particular that this bill does away with the established rule that to be held guilty a person must "knowingly" violate the law.

The "no-collusion" affidavit is presently being required in all bidding for contracts of the Department of the Interior, according to N. O. Wood of that department, and is under consideration for use by General Services Administration in all its contract work, according to Charles W. Gasque, jr., of the GSA's Federal Supply Service.

Mr. Wood reports an instance last year in which Interior received 108 bids for supplying electrical equipment, of which 70 percent were identical.

All Bids Were Rejected

All bids were rejected and a new invitation was sent out with the "no-collusion" clause. He said only 14 percent then turned out to be identical.

In response to questioning by Sen. Hruska, Mr. Wood admitted that the equipment being bought was made up largely of standard items, such as insulators, clamps, brackets, etc.—items that would be found in the inventories of most any electrical supply house.

Lee Loevinger, head of the antitrust division of the Department of Justice, who testified in support of the bills earlier (OPD, 9/11/61), charged that some corporate officials let their subordinates violate the antitrust laws, but insist that they not be told about them.

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Report From Europe

UK Drug Trade Irked

—Continued from page 3

Company), two of the companies most closely concerned, are taking great umbrage at the results of the minister's decision. Pfizer says the "curtailment of normal patent protection" is a "vital blow to the pharmaceutical industry."

H. C. H. Graves, chairman of Vitamins, a producer of drugs, contrasts the treatment of the industry with the subsidization of British agriculture.

If it is worth subsidizing farming to the tune of nearly $730 million a year, he comments, "is it not worth paying the pharmaceutical and fine chemical industry justly for its goods instead of importing from counterfeiters dumped goods to save a few pounds?"

In May, Mr. Powell explained that the ministry would negotiate royalty payments with British patent holders in this situation. The ministry has this power under a law permitting government agencies to buy unlicensed products.

Thinking of 5 Percent Royalty

The ministry is believed to be thinking in terms of a royalty of around 5 percent on these purchases, which would still represent a significant saving. The UK firms involved can be expected to do everything possible to set the royalty high enough to discourage any future purchases.

If the present negotiations fail, the law stipulates that the royalty will be set by a court.

The drug industry association says the contract was decided "with only one idea in mind—to buy drugs for hospitals at the cheapest possible price—regardless of the damaging effects of their action on research and exports in the drug industry."

The industry estimates that its 1960 research budget was $21 million against $17.5 million in 1959 and $8.4 million in 1954. According to industry reports, one reason for this sharply increasing trend is the decision by American subsidiaries to boost their British spending on research substantially.

The real threat to the industry is that the ministry will extend this new purchasing policy to the general prescription service of the National Health Service. Hospitals last year accounted for only $33.6 million of the total drug bill against $140 million in the general service.

International Flavors Files For First Offering of Stock

International Flavors & Fragrances, Inc., New York, has filed a registration statement with Securities & Exchange Commission to cover a proposed public offering of 514,432 shares of its common stock, of which 105,000 shares will be sold by two stockholders and 409,432 shares will be sold by the company.

The proceeds from the company's sale will be applied to the purchase and retirement of presently outstanding common shares held by a Dutch investment company. This will be the first time the company's shares have been offered to the public.

Drew Name Is Changed

Drew Chemical Corporation is the new name of E. F. Drew & Co. Main business of the newly-named firm is refining of imported and domestic vegetable oil products at a 40 million-pound-a-month plant at Boonton, N. J. Drew also has facilities in California and Canada.

Kefauver Is Seen Aiming

—Continued from page 5

the production of the metal, as none of the big three producers is involved at this time.

It was stated that depending upon what turns up in the preliminary review, no subpoenas have yet gone out to Aluminum Company of America, Reynolds Metals Company, or Kaiser Aluminum & Chemical Corporation.

The preliminary study was initiated as a result of complaints to the committee involving various aspects of the industry. A committee aide said the industry was being examined from top to bottom. The complaints were said to be directed at the pricing practices in the industry with charges being made of price fixing.

One of the committee's principal lines of inquiry over the several years has been into the matter of past "administered" prices—prices set with little regard to the rise and fall of demand.

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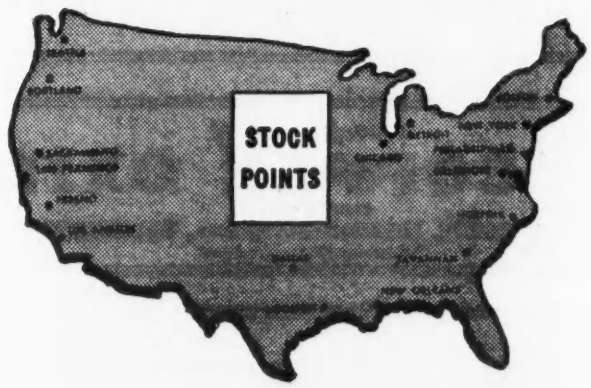

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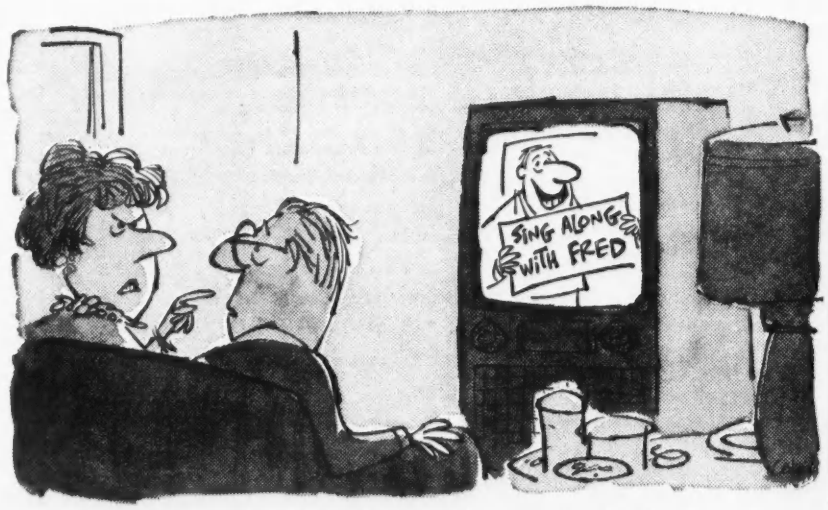

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Fatty Acid Production Is Up Sharply from July

August production of fatty acids totalled 50.1 million pounds, up 14 million pounds from July, but down 3.2 million pounds from August, 1960, the Fatty Acid Producers' Council reports. Production of saturated fatty acids was 18.3 million pounds, compared with 14.1 million pounds in July and 22.2 million pounds in August of last year.

Unsaturated fatty acid production, including the tall oil types, was 31.8 million pounds, versus 22 million pounds in July and 31.1 million pounds in August 1960.

Disposition of all fatty acids amounted to 55.6 million pounds, up 13.5 million pounds from July, and up 3.9 million pounds from August last year.

Finished goods inventories totalled 38.6 million pounds on August 31, down 2.3 million pounds from the July 31 figure. Work-in-process stocks amounted to 17.1 million pounds, compared with 14.5 million pounds at the end of last month.

Chlorine-Caustic Yardstick

—Continued from page 7

cient quantity for the development of end-products to assist the underdeveloped nations of the world by raising the standard of living for millions of people.

"The industry must be kept sound and healthy through low-cost production, realistic pricing and adequate safety measures in the manufacture of these valuable basic chemicals.

"New uses must be developed for caustic soda. Research effort must be directed toward producing chlorine without caustic soda."

Mr. Cremers then offered his audience another chart, as follows, to complete the picture:

CAUSTIC END-USE PATTERN
(thousand short tons)

US	*Japan*	*France*	*Canada*	*India*
		Chemicals		
2,039	172	150	119	5
		Pulp, Paper		
532	125	27	157	45
		Rayon, Film		
621	359	—	—	69
		Textiles		
353	54	137	—	37
		Surfactants		
353	—	45	20	43
		Metals		
—	—	55	—	5
		Petroleum Refining		
310	—	—	11	5
		Miscellaneous		
222	70	41	60	9
4,434	780	455	373	237

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P. O. 532, LEBANON, PENNA.

Agricultural Chemicals

Superphosphoric Acid Gains Favor; TVA's Idea Appeals to Industry Men

Higher-analysis phosphoric fertilizers and improved phosphoric acid are being made possible by the use of superphosphoric acid. Containing 76 percent P_2O_5, superphosphoric acid is rapidly gaining favor with formulators eager to stay competitive in the race to produce fertilizers with more punch per pound. In 1956 there was but one producer of SPA—the Tennessee Valley Authority, and as late as 1958, TVA's output was a mere 1,428 tons. By fiscal 1961 TVA's production score had zoomed to 30,727 tons as more and more formulators sought experimental lots.

In addition, TVA is in the process of replacing its SPA unit with a new plant of comparable capacity which will shave production costs considerably.

Today there are three SPA plants in operation including TVA's Wilson Dam, Ala., unit with at least one more coming. In mid-1960 a private chemical company started up a plant in Chicago, while earlier this year another SPA plant went on stream at Addyston, Ohio. At Lawrence Kan., another unit is being readied for commercial operation.

What Interests Fertilizer Men

Why are fertilizer men following the development of SPA with such keen interest? The answer lies in part with the current emphasis on high-analysis fertilizer applications.

In the government-operated process, SPA (an electric furnace acid) is used to acidulate phosphate rock, thereby yielding a superphosphate termed "high-analysis superphosphate" with a 54 percent P_2O_5 content, as compared with a triple superphosphate P_2O_5 content of approximately 48 percent.

Both granular and non-granular superphosphate can be produced from the SPA process with equipment already common to commercial fertilizer producers, the government agency reports. Another advantage to the SPA process is that run-of-the-pile phosphate, under 22 percent P_2O_5 content, may be employed.

In the production of liquid fertilizers, SPA is used as a sequestering agent to remove impurities and precipitate from wet-process phosphoric acid.

Eliminated by this application is the clogging of spraying machines during field use, a problem which has long plagued farmer and fertilizer man alike.

While there are advantages to SPA, both in solid and liquid mix fertilizers, there are certain drawbacks which limit its use and application.

Distribution is one problem which has been sidestepped at least if not eliminated. As now constituted, SPA must be shipped in stainless steel tanks kept at a high temperature due to its tendency to hydrolize or crystallize at low temperatures.

One Solution to Problem

One private producer has attacked this problem by transporting SPA to formulators in stainless steel tanktrucks, railroad cars not being available at present with suitable equipment.

The government takes another route. Treating SPA with ammonia, a liquid 10-34-0 formula is produced which can be shipped via rail or barge, at lower freight rates than tanktrucks, without excessive precautions.

Upon reaching a formulator, nitrogenous fertilizer can be added to supply the needed ingredient for a high-analysis complete fertilizer.

Another stumbling block in the growth of SPA is its seasonal demand. This is especially true in the field of liquid fertilizers where demand is extraordinarily heavy during peak application periods and non-existent otherwise.

To counter the seasonal fertilizer demand, which incidentally boosts overall SPA costs because of storage, private SPA producers are investigating industrial usage of SPA in order to prevent off-season lulls.

Two private SPA producers now produce industrial-grade SPA, while the latest company in the field has not revealed plans for industrial exploitation although it is investigating the possibility.

Price Trends

Advanced

Ammonia, anhydrous and acqueros, $8 per ton
Ammonium nitrate, $3 per ton
Nitrogen solutions, 6c. per unit-ton
Potassium sulphate, (min. 50% K_2O) 5c. per unit-ton
Urea, $4 per ton

Reduced

None

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Oct. 7, 1960
111.58	110.18	110.18	111.27

For Current Prices See Page 9

50,000 tons of ammonium chloride to the Peiping government. Delivery is slated for November. The Japanese trade press indicates that the sale of ammonium chloride to Red China will be followed by renewed exports of urea, ammonium sulphate and other fertilizer materials.

Ammonium Sulphate—Bids are being invited by Pakistan for the purchase of 1,200 tons of ammonium sulphate. The bids will be opened October 18 under tender No. VA-3-ICA-1004-1005-1006-64798-61, available from Miss Eleanor Renwick, Office of Commercial Secretary, 2315 Massachusetts Ave., N.W., Washington 8, D.C. Telephone is DEcatur 2-8330.

Fishmeal—Domestic US fishmeal is reported firm with prices steady at a range of $118 to $120 per ton, Atlantic and Gulf ports.

Potassium Muriate—Price of standard, bulk potassium muriate will go up 1c. per unit of K_2O on November 1 to 37c. Material contracted for after July 1, 1961 will be pegged at 39c. for the November-January period.

Bagged, 60% minimum K_2O potassium muriate will go up 60c. per ton on November 1 to $29.00 a ton. Material contracted for after July 1 will bear a $30.20 price tag for the November-January period.

Pesticides

Interception of plant pests at US ports of entry in the fiscal year ended June 30 rose considerably over the previous year. USDA's Agricultural Research Service reported a 37 percent increase last year in the interception of the fourteen most regularly-encountered plant pests.

Over 323,000 lots of prohibited plant material were seized to prevent entry of plant pests into the US. The number of seizures represented a 3 percent climb over the preceding year, and was 9 percent higher than the average for the past five years.

One of the major attackers of stored grain, the khapra bettle, was intercepted 202 times, up 71 from fiscal 1960. Fumigation of thirty-eight ships and sixty-six lots of general cargo from outside the US was necessary because of Khapra beetle infestation.

Pyrethrum—Ecuador is rapidly expanding its pyrethrum production. Totaling 1,800 acres in 1960, additions this year have raised the land under cultivation to 2,800 acres reports Chemical and Rubber. Among those who have entered the Ecuadorian expansion is one producer from the former Belgian Congo.

Animal and Plant Foods

Ammonium Chloride—After a lapse of three years Japan has reopened its fertilizer trade with Red China by selling

Agricultural Chemical Briefs

NEW INSECT REPELLENT: ChemSpex, Inc., St. Petersburg, Fla., announces a new insect repellent for outdoor use tradenamed "Insectiseed." Reportedly providing a 24-hour protection period against gnats, mosquitoes, sand fleas and other biting insects, "Insectiseed" is in granular form and can be applied broadcast like grass seed. A combination of vapor products imbedded in vermiculite, "Insectiseed" produces an odorless vapor, without fog or spray, that repels insects but is not noticeable by humans according to Chemspex.

Trade Name Chemicals

Latex Paints: PVAc Emulsions Put Pressure on Styrene-Butadiene

Widespread interest in development of suitable semi-gloss enamels and all-color compatible emulsion polymers is lending new vigor to the already rapidly growing latex paint market. Latex paint output this year is expected to top 85 million gallons, over 50 percent of which will be contributed by styrene-butadiene. However, the growth rate for newer materials such as the acrylics and polyvinyl acetate emulsions has been sharper, and it is here that most of the research work has been done.

Vinyl-based paints have continued to grow, largely at the expense of the older styrene-butadiene systems. According to the Census of Manufactures report for 1958, production of vinyl latex paints amounted to 3.1 million gallons in 1954, and jumped to 12.1 million gallons just four years later.

Last year's output is estimated at about 26 million gallons and is expected to top 30 million gallons this year.

Acrylics have come up fast in the past few years and are being used now, with an oleoresinous primer, on exterior surfaces. It has been found possible to apply a latex paint directly to wood surfaces that have been previously painted and are in good condition if an additive is mixed in the first coat.

Water-Thinned System on Repaint Surface

This material will be preferentially absorbed by the chalk and will bind it. Thus, it is possible to use a water-thinned system on repaint surfaces. Work is reported in progress to develop a similar system for new wood and repaint surfaces in poor condition where most or all of the old paint has to be removed.

More latex-based semi-gloss enamels for interiors have been coming out as paint makers realize the advantage of being able to offer the householder a flat paint and a semi-gloss enamel for woodwork, both based on a latex system.

National Gypsum Company markets Gold Bond Velvet Semi-Gloss Enamel" based on a polyvinyl acetate copolymer emulsion. The product sells for $7.60 a gallon on the retail level. The company also has a new latex flat wall paint with santicizer and fragrance additives.

Synkoloid Company, Los Angeles, Calif., which markets "Synkoloid," "Synco Seal," and "Synlith" paint products, also has a latex-based semi-gloss paint on the market.

Ideally, it's hoped that a dependable coordinated, interior system can be developed. This would mean that full gloss, semi-gloss and flat wall latex paint products could be supplied in the same color.

In attaining a satisfactory latex gloss paint, it's believed the probable solution lies in combining the two approaches of 1) formulating for gloss by additives, and 2) chemically modifying the basic monomer by polymerization.

Among properties sought by latex paint chemists in producing suitable latex paint are better adhesion, increased open-time, better leveling, better water resistance and good wet adhesion of film to various substrates.

Limited Pigment Addition Possible

In making a gloss paint, the amount of pigment which can be added to the latex is limited as gloss falls off rapidly. A pigment volume concentration of twenty-five is easily possible with an alkyd enamel without a loss in gloss, while latex will not take a PVC of more than ten to fifteen.

The past few years have seen installation of color dispensers in many local paint stores. In order to provide the maximum number of colors which can be reproduced time after time, the coatings industry has marketed colorants which are dispensed by machines into white bases.

The finishes can contain oil, alkyd or latex as the vehicle and can be used in interior or exterior. In general the approach has been to formulate colorants that will be compatible with all types of paint and paints that will not lose their specific properties when these colorants are added.

In order for the consumer to get the same color regardless of the time interval between applications, careful control of strength and tone of colorants is required along with the strength of the base paints.

PVAc EMULSIONS: USE IN PAINTS

1965 . . . . . 95 million lbs.
1962 . . . . . 52 million lbs.
1960 . . . . . 51 million lbs.
1959 . . . . . 45 million lbs.
1958 . . . . . 38 million lbs.

Estimates computed on dry basis

Wetting agents are usually used to modify the paint base to make it compatible with the colorant used. However, these surfactants tend to lessen water resistance and adhesion in a latex paint.

Last week Dewey & Almey Chemical division of W. R. Grace & Co. announced development of a new vinyl acetate copolymer emulsion which it claims is a radical departure from previous vehicles in that a high degree of pigment compatibility has been built into the polymer particle itself.

D&A says the new product, tradenamed "Everflex CA," is compatible with all "universal" and water-base tinting color systems. Paint formulations utilizing the emulsion will require minimum amounts of surfactants and are expected to excell in water resistance and adhesion, the company says.

Whether "Everflex CA" receives its colorants at the factory or the retail store, the company reports, it will develop the full value of each hue as intended by the paint chemist and promised by the color chip.

By insuring the fidelity of both tube and machine-mixed colors, D&A expects the new emulsion to contribute to increased consumer satisfaction and confidence.

Product Offered in Bulk

"Everflex CA" will be supplied in tank-car quantity at 18½ cents a pound, wet basis, f.o.b. Cambridge, Mass., with freight allowed. Solids content is 55 percent; paticle size, 0.5 micon; residual monomer content, less than 1 percent.

The product has been formulated especially for paints during two years of research and has been extensively tested for use on interiors and exterior masonry. The company is engaged in a long-range program to prove out its suitability for exterior wood as well.

Dewey & Almey markets eight other "Darex Everflex" copolymer emulsions in which a plasticizing comonomer is reacted directly into the polymer chain. The comonomer imparts permanent flexibility to films of these materials, making them particularly useful in formulating latex paints.

Shawinigan Resins Corporation uses the tradename "Gelva" for its dispersions of polyvinyl acetate and modified polyvinyl acetate resins in water. The emulsions generally have a solids content of 55 percent, have good pigment binding capacity and good acceptance of plasticizers, pigments and binders.

Standard formulations marketed for the paint trade include "Gelva TS-85," "TS-30," and "TS-70." For exterior applications, the products may be used over masonry with very good results, while on interiors they perform well on all types of surfaces, the company reports.

A great number of different types of "Gelva" emulsions have been developed by the company to meet numerous appli-

—Continued on page 56

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Aliphatic Organics

Vinyl Chloride Monomer's Poser: Will the Half-Cent Hike Go Through?

Will vinyl chloride monomer be advanced one-half cent a pound on November 1? Three major producers who made their positions clear last week say yes, but others in the industry—competitors as well as buyers—have their doubts. It is universally agreed, however, that the increase is a desperately needed first step toward firming up the entire vinyl market, which would involve, of course, subsequent boosts in polymer prices.

To a large extent, vinyl monomer's price history explains the skeptics' view. Reductions totaling 5 cents a pound have been made since last October, and an initial attempt (April 1) to reverse the downtrend proved futile when three months later a 2½ cent cut established the current tankcar quote of 7½ cents a pound.

Production economies are no factor here. Rather, it is a case where monomer suppliers have been pressured repeatedly into keeping their customers' operations profitable. Local, highly-competitive situations, leading to under-the-market selling, also figure in the downtrend; so too, producers' desires to discourage back-integration.

Pressures on Suppliers to Continue

None of these pressures are going to ease immediately. New monomer facilities are being constructed and, within a year, one PVC maker that is currently expanding its capacity by 100 million pounds will get its requirement from one of the new plants.

In addition, the recent purchase of a PVC producer by a leading oil refiner has given rise to speculation that the latter, with a ready source of ethylene and chlorine available, will also get into monomer production.

Next year, in-place capacity will approach 1.5 billion pounds, exceeding demands by about 4 million pounds. Furthermore, it's unlikely that the twain shall meet four years hence.

Vinyl chloride monomer became a billion-pound chemical last year, output rising about 60 million pounds, of which 23 million represented open-market sales. In 1959, in contrast, production exceeded '58 volume by 286 million pounds as sales rose 129 million.

Indicated, despite the fact that business was hampered by the recession in '58: a mature chemical which promises steady but not spectacular growth.

What it comes down to is this: Buyers of monomer are going to pay the higher price and in so doing prepare the minds of their customers for an eventual increase in polymer prices, or reject it because the odds temporarily are in their favor.

The latter course, it's felt, could cause particularly pressed monomer producers to flee the market, for with no profit potential they would have no good reason to stick around. And if nothing else can do it, such a move would undoubtedly shore up the price structure.

Acetoacetanilide—Both US producers of acetoacetanilide are now quoting the chemical at 70c. a pound in carloads and at 71½c. a pound in lesser drum quantities, delivered.

For a short period, one firm was officially quoting at 80c and 81c. a pound, respectively, on the same size lots, but recently revised its schedule in line with that posted by its competitor in the latter part of August.

Reduced at the same time were acetoacet-o-chloroanilide and acetoacet-o-toluidide. The former is now quoted at $1.25 a pound, down 10c., and the latter at 73c. a pound, down 9c., in carload lots, and 1½c. a pound higher in smaller drum quantities.

Butyl Alcohol—A 24-million-pound-a-year butanol facility is now on stream at Freeport, Tex. The facility belongs to a new producer of these chemicals—a firm that is jointly owned by US and German interests.

Shipments of both normal butyl and isobutyl alcohol are now available on a regular basis from the new installation.

Glycerine—Factory production of crude and synthetic glycerine amounted to 26.4 million pounds in August, up 7.7 million pounds (29.2 percent) from July and up 500,000 pounds from August 1960.

The same month, output of all grades of refined glycerine totaled 24.4 million pounds, up 5.8 million pounds (23.8 percent) from July.

At the end of August, factory and warehouse stocks held by producers were 67 million pounds, up 2.7 million pounds (4 percent) from July and up 15.5 million pounds from the end of August 1960.

Of the total inventory, crude stocks represented 33.2 million pounds, refined 33.8 million. The former increased 4.2 percent within the thirty day period, the latter 3.8 percent. (Statistics were compiled by the Commerce department and relayed to OPD by the Glycerine Producers Association.)

A firm which announced plans for a glycerine facility way back in August of 1959 issued an interim report last week. The company disclosed that it expected to have the plant in operation by April 1962.

Since completion was originally scheduled for '61, there has been considerable

Price Trends

Advanced
Trichloroethylene, ¾c. per lb.

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Oct. 7, 1960
130.02	130.01*	130.05	131.20

* Revised.

For Current Prices See Page 9

Organic Chemicals Output: July

The following figures, in pounds, represent output of specified organic chemicals in June and July, 1961, as reported by the Tariff Commissoin.

	July	*June*
Acetic Acid:		
Synthetic	66,510,175	63,732,985
Natural (wood distillation)	—	1,980,000
Acetic anhydride	90,865,381	100,764,499
Acetone	54,035,599	60,766,055
Acrylonitrile	9,877,061	21,144,801
1-3 Butadiene (Rubber grade)	156,509,048	153,617,965
Carbon disulfide	44,372,883	46,860,318
Carbon tetrachloride	31,428,877	29,652,984
Ethanolamines (Mono-, di-, and tri)	9,590,124	11,324,996
Ethyl acetate (85 percent)	6,061,037	9,535,793
Ethylene glycol	94,414,206	96,977,508
Formaldehyde (37 percent by weight)	125,740,417	139,062,972
Methanol:		
Synthetic	161,105,808	163,150,770
Natural (wood distillation)	—	956,160
Pentaerythritol	4,633,387	5,146,906
Perchloroethylene	16,413,326	15,258,291
Propylene glycol	16,024,911	15,107,990
Trichloroethylene	23,710,084	22,047,440

A dash (—) indicates data not reported.

Aliphatic Organics

trade speculation that the firm had shelved plans for the glycerine facility.

It now appears, however, that the firm was busy developing a new manufacturing process which involves the conversion of propylene oxide to allyl alcohol and thence to glycerine. The firm had indicated initially that it would take the epichlorohydrin route.

The firm's new plant at Brandenburg, Ky., is reported to have a capacity of 40 million pounds a year. It was not immediately clear whether this figure represented glycerine only.

Methylene Chloride—Methylene chloride prices were not advanced on October 1, as scheduled by two major producers several weeks earlier.

Indications are that consumer opposition and the reluctance of some producers to antagonize their customers, who are likewise caught in th cost-price squeeze, caused the two firms to rescind their announcements.

Molasses—Puerto Rican shipments of blackstrap molasses to the US mainland in April amounted to 7.4 million gallons, compared with 1.6 million in March and 3.9 million in April 1960. This brought total arrivals for the first four months of the year to 9 million gallons as against 6.6 million during the corresponding period in '60.

Molasses used in the production of alcohol and spirits amounted to 100,000 wine gallons in July 1961, down from 300,000 gallons in June and 6.8 million gallons in July 1960.

Pentaerythritol—A major producer has set up a new and higher schedule for ton lots and smaller quantities. Larger demand for small amounts of the chemical, which mean higher handling costs, account for the action.

For 1,000 to 2,000 pounds, the price is now 32c. a pound. Smaller quantities sell at 34c. a pound.

Propylene—A major oil refiner is increasing its propylene capacity by 150 percent with the addition of new facilities at its Marcus Hook, Pa., installation.

With completion, set for October 1962, the plant will add 180 million pounds of high-purity capacity to the firm's existing 120 million.

The expansion is apparently required by greater demands for propylene in the manufacture of polypropylene. In addition to supplying a jointly-owned firm's requirement, the producer in question has also signed a contract to supply the propylene needs of a new polypropylene manufacturer whose plant is currently going up in New Jersey.

The US subsidiary of a Italian chemical manufacturer reports it will start production of polypropylene resin late this month at its Neal, W.Va., plant.

Sucrose—Spot prices for raw sugars have strengthened—$6.15 per hundredweight early last week as opposed to $6.07 in mid-August—but there appears to be no move in the making to boost the quote on refined sugar from the current $9.30 a hundred pounds, f.o.b. eastern refinery.

This price was established about six weeks ago by a 10c. per cwt. reduction, following a steady downtrend in raw sugars and forecasts of a record domestic sugar cane crop.

Although a large percentage of the country's sugar requiremnt is purchased abroad under a government-set quota system, increased emphasis is being placed of late on the US industry itself. In light of the fact that Cuban sugar is no longer imported and the political unrest in other producing nations which could cut off (or be cut off) supply sources, this may be a good idea.

Sen. George Smathers, of Florida, indicated last week that he will ask the next Congress to increase the domestic sugar quota in order to encourage expansion of his home state's sugar industry. He also plans to ask the Agriculture department to expand its research facilities on the Florida sugar cane varieties.

Trichloroethylene — Solitary price change on October 1 was a ¾c. a pound increase in trichloroethylene, which established the tankcar listing at 12c. a pound, delivered.

This was the first development since last December when prices were dropped 1½c. a pound.

Monosodium Glutamate

—Continued from page 5

stead, sell it to companies in the food processing and condiment fields.

Beside saying it expects to take its place among the major producers, CSC would not give production figures.

Last year the output of the material in the United States was just under 21 million pounds, valued at about $25 million.

Other big names in the sodium glutamate business right now include: Hercules Powder Company, International Minerals & Chemical Corporation, Merck & Co., and Great Western Sugar Company.

The latest move, says the company, will continue its growth in fermentation chemistry operations, which already include the production of antibiotics and vitamins, as well as nutrition products for the feed industry.

The new process, which harnesses a bacterial organism recently discovered in Japan, was developed by Commercial Solvents' research organization. The method produces snow-white, free-flowing monosodium glutamate crystals of high purity. The company has also obtained exclusive rights to the new organism.

Commercial Solvents says its expanded program of cooperation with research chemists and scientists throughout the world led to the obtaining of the new monosodium glutamate organism from its Japanese discoverers. The process for volume production of the flavor-boosting white crystals was developed by Commercial Solvents scientists and engineers at the company's Terre Haute research center.

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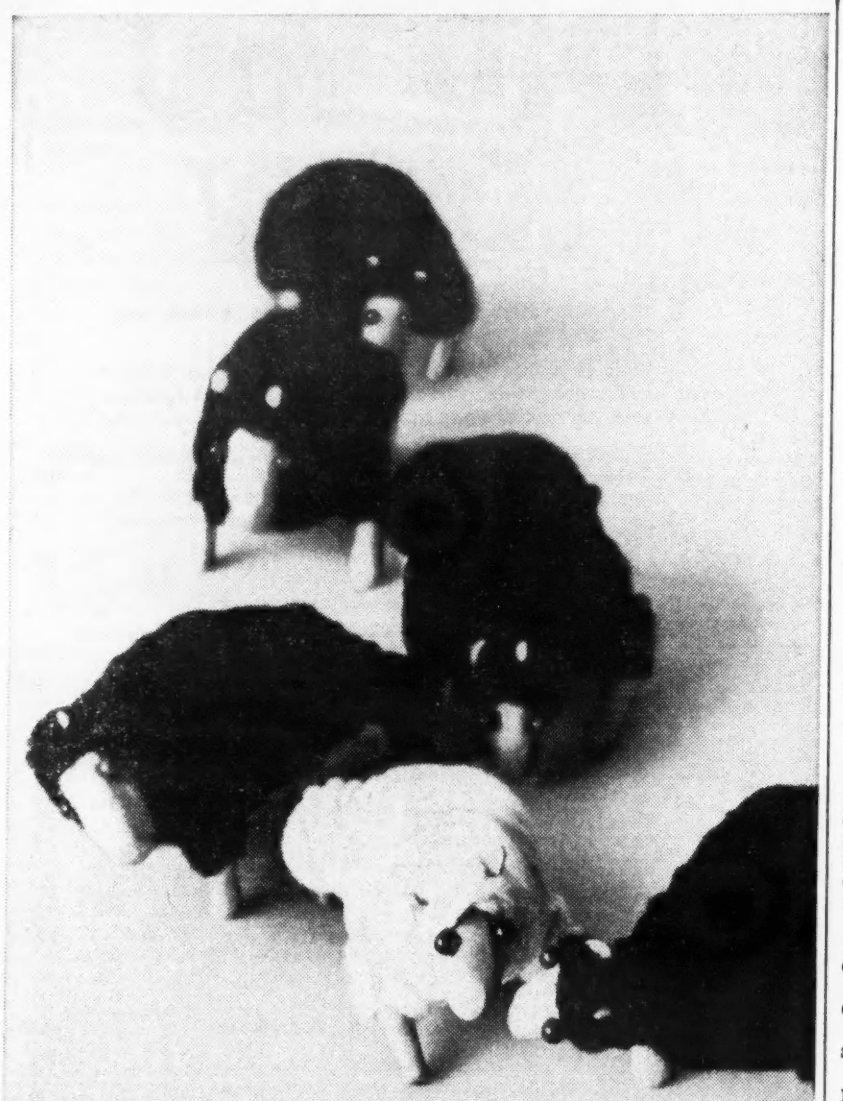

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Coal Chemicals

With the announcement by a major oil company of plans to build a 50 million-pound-a-year petronaphthalene plant, total industry capacity from petroleum sources will hit 625 million pounds by 1963. To employ the "Hydeal" process, the new plant represents the oil company's first venture into petrochemicals. Site of the new plant is Ponce, Puerto Rico, adjacent to the builder's existing refinery. Cost of the naphthalene plant is put at $6,500,000. Slated to come on stream in January, 1963, the oil company is already contemplating building into the new plant provisions for rapid expansion of capacity should markets develop beyond immediately foreseeable volume.

Supply and demand coke oven-derived chemicals currently presents a mixed bag of market situations.

The light oils, benzene, toluene and xylene are fairly stable. Producers report no pressure on benzene price and are signing contracts. Toluene output is moving easily into octane upgrading. Xylene solvent sales are good and promise to rise while the ortho and para fractions remain in heavy demand.

Creosote, however, is rather stagnant on the basis of cost-cutting by railroads although construction and utility companies are taking up some of the slack.

Cresylic acid continues firm against heavy domestic and export demand.

Naphthalene is still short but rising steel rates and petronaphthalene production are slowly closing the gap. a-Picoline is under heavy pressure and growing tighter due to stepped up demand for coccidiostats and vinyl pyridine demand. Gamma is tight but beta is reported in balance.

Tight also is pyridine although prospects of supply recovery here are encouraging.

Market characteristics for intermediates is varied, too.

Aniline demand is fair to good while supply is ample.

Phthalic anhydride, the current big problem in intermediates, is still loose with no resolution of the imbalance in sight.

Resorcinol remains routine.

Styrene monomer went up 3/100c. per pound for tankcar quantities October 1 and is reported in fair to good demand.

Steel production in the week ended September 30 managed a 0.8 percent gain over the preceding week's output.

Total production for the week was 2,131,000 net tons, as against 2,114,000 tons in the preceding week.

Based on assumed 1961 steel capacity, rate of production for the week was 73.9 percent.

Production for the year through September 30 was 70,449,000 tons, 11.7 percent below the total achieved in the comparable 39 week period of 1960.

Price Trends

Advanced
Styrene monomer, tech., tanks, .03c. per lb.

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Oct. 7, 1960
119.86	119.85	119.86	118.29

For Current Prices See Page 9

Basic Products

Benzene—In ample supply, benzene is moving easily into end-use areas.

Producers note no depressed areas of benzene demand.

Supply from coke oven sources continues well able to supply consumers as steel rate sustains an upward drive.

Producers indicate little if any customer pressure on price. In fact, contracts are being negotiated with little difficulty.

Creosote—Calls from construction and utility companies are well sustained, taking up the slack from railroad demand which is depressed.

Prices remain steady.

Cresylic Acid——Domestic cresylic market remains firm.

Improved coke oven supply of cresylic acid due to climbing steel rate has been offset by partial disappearance of ADF cresylic from the US scene.

Cresylic traders are turning instead to the lush European and Asian markets where a critical shortage there is bringing higher prices than in the US.

Over the near term one trade observer sees the cresylic market as a balanced one. Over the long run, however, cresylic is bound to be a short supplied item.

For one thing, the long range change planned in steel production is tending away from coke and turning instead toward oil and gas, use of which will substantially reduce the amount of crude material available.

Switches in petroleum refining technology also portend a reduction in cresylic output from oil sources.

In the current market domestic US prices remain firm at established levels.

Naphthalene — Imported naphthalene price is now 7c. a pound report sources. Growing volume of imported naphthalene in recent months is stiffening phthalic producers' opinions in regard to naphthalene price.

Some are refusing to buy at 7c., confident that the price will drop in the immediate months.

Picolines—Supply of a-picoline is tight and growing tighter according to trade sources.

Not only the domestic but the world market is suffering from a shortage of material.

One cause of the tight supply is the development and expansion of coccidiostats, a drug which attacks coccidiosis, a dreaded chicken killer.

One major coccidiostat producer estimates that his current production capacity of the drug could devour the entire world supply of a-picoline if run at one hundred percent.

Another area of a-picoline mass use now expanding is vinyl pyridine.

Indication of the universal a-picoline shortage is the world price of approximately 60c. per pound. Current domestic list price for a-picoline is in the range range of 43 to 46c. per pound.

Concerning the other picolines, gamma is also tight but beta is described as in balance.

Pyridine—Refined 2° material continues tightly supplied although the long range prospects for easement are considered good.

Demand remains high and is expected to be sustained. Supply improvement is therefore expected from new synthetic sources and increased efficiency of recovery units.

New synthetic pyridine units are on stream in the US and in UK.

Elsewhere, recovery techniques are reported to be raising the volume of pyridine taken from crude bases.

Toluene—Market is relatively quiet at present. Producers report toluene is being sold in substantial volume for octane improvement in motor gas and avgas.

Benezene conversion units are taking toluene causing occasional snug supply periods in the Gulf area.

At least one benzene-via-toluene producer is planning an alternate route via xylene if toluene price became too expensive or supplies too tight.

Prices for coke oven and petroleum toluene remain stabilized at the schedule set late last year.

Xylene—Sales are well sustained report producers.

Stripping of the isomers, particularly p- and o-xylene is accounting in part for the heavy xylene demand.

Long term contracts for exports of the isomers insures prolonged good demand for the fractions and consequently the light oil itself.

The solvent end use of xylene is also encouraging.

Appliance business is reported up and the pre-Christmas period should see more improvement.

The automobile situation, despite contract disputes, shapes up as a healthy one as far as unit production is concerned and should also result in boosted xylene solvent movement.

Intermediates

Aniline—Demand is considered fair to good by one major producer.

While not booming, demand is regarded

Coal Chemicals

as brisk for the current middle Fall months.

Rubber and tire producers are taking aniline in good volume to match automobile output and the replacement tire business is also taking sizable quantities of aniline.

Orders are frequent but not large, however, as aniline producers find consumers are working close to inventory.

Market situation is considered stabilized after this Summer's price reduction which sent aniline down 3c. per pound to a tank-car price of 15c.

Heavy July production of 12.8 million pounds pushed total aniline output for the year through the first seven months to 74.8 million pounds, only 1.1 million pounds below production in the same period last year.

Current supply is deemed adequate by producers.

Phthalic Anhydride—Loose supply of phthalic continues unabated.

No immediate improvement in the supply situation is expected.

What's needed, one source says, is a breakthrough into another volume consumption market, perhaps into construction materials.

While alkyds, polyesters and plasticizer growth is steadily increasing, phthalic capacity is leapfrogging ahead with the result that supply now, and in the foreseeable future, is far exceeding demand.

Prices remain unchanged on the producer level.

Resorcinol—Market conitions are unchanged for this intermediate. Material continues to be taken in normal quantity for dyes, medicine, adhesives, etc., as supply remains ample.

Carlot price is stable at 77½c. per pound, freight equalized, with less than carlot amounts moving at 78½c.

Styrene Monomer—Demand is moving ahead on the basis of fair to good calls from end-use areas.

Major suppliers foresee considerable pickup in styrene sales before the year is out.

A .03c. per pound advance in the tank-car price of styrene monomer became effective October 1 under terms of the quarterly escalation clause making the fourth quarter volume price 11.03c. per pound.

The new joint-owned styrene monomer plant unveiled in Houston in late August is reported operating satisfactorily. Capacity is 70 million pounds a year.

Producing and shipping on a commercial basis, the new plant has yet to be run at capacity although reports indicate that day may not be too far off.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended September 30, were as follows:

Ammonia liquor	lbs.	637,042
Ammonium sulfate	lbs.	26,592,334
Benzene	gals.	2,920,792
Coaltar	gals.	14,736,180
Crude chemical oil	gals.	576,946
Solvent naphtha	gals.	96,158
Toluene	gals.	649,064
Xylene	gals.	180,296

Cyclics Pace Organics

—Continued from page 7

zene, toluene, xylene, and other cyclic products, plus the aliphatic hydrocarbons.

Production of cyclic intermediates, covered in the second section of Tariff's report, amounted to 9,602 million pounds in 1960, up 13.5 percent from 8,459 million pounds in '59. More than 60 percent of this output was used captively.

Output of finished synthetic organics amounted to 44,350 million pounds, up from 41,856 in '59. Of the total, cyclic finished products accounted for 8,216 million pounds, and acyclic products for 36,134 million pounds.

In terms of quantity, production of eight of the eleven groups of finished synthetic organics was greater in 1960 than in '59, Tariff reports.

Scoring the largest gains were plasticizers, up 11.7 percent; pesticides and other organic agricultural chemicals, up 10.6 percent; flavor and perfume materials, up 9.9 percent, and medicinal chemicals, up 6.8 percent.

Groups with declining output were dyes, down 8 percent; toners and lakes, down 5.7 percent, and rubber-processing chemicals, down 5 percent.

Overall totals for the organics industry include data for chemical raw materials, as well as semi-finished and finished products, and therefore involve considerable duplication, the commission notes.

Synthetic Glycerine

—Continued from page 8

It converts propylene oxide, though a new and highly-efficient catalyst, to allyl alcohol, which is then converted to glycerine.

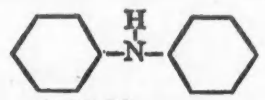
The conversion method, says the company, gives excellent yields of allyl alcohol in a high degree of purity.

Spokesmen add that the company has developed a unique method for obtaining a highly-purified finished product, and has also developed a novel method for regeneration of the catalyst.

Propylene oxide, in addition to its use in the manufacture of glycerine, is used to produce polypropylene glycols, which have many uses, one of which is the manufacture of urethane foams.

Olin's Doe Run organic chemicals plant, built in 1951, uses hydrocarbons extracted from natural gas. These raw materials yield various organic chemicals that are used primarily in the manufacture of other chemicals.

DIPHENYLAMINE



CHEMICAL NAME: Diphenylamine
GRADE: Technical
$C_{12}H_{11}N$ MOL. WT.=169.2
DESCRIPTION: Bulk: Amber to brown liquid or light tan fused solid. Flakes: Very pale tan flakes which may darken on storage.
Meets U.S. Army-Navy specification JAN-D-98, Oct. 25, 1944.

SPECIFICATIONS:	(FLAKES)	(LIQUID)
Freezing Point (Dry)	52.5°C. Min.	52.5°C. Min.
Moisture	0.2% Max.	0.2% Max.
Insoluble in Benzene	0.02% Max.	
Insoluble in Ether	0.02% Max.	
Free Aniline	0.1% Max.	0.1% Max.
Aniline Salts and Other Oxidizable Material (expressed as Aniline)		
Alkalinity (as NaOH) or Acidity (as HCl)	0.005% Max.	
Ash		0.05% Max.

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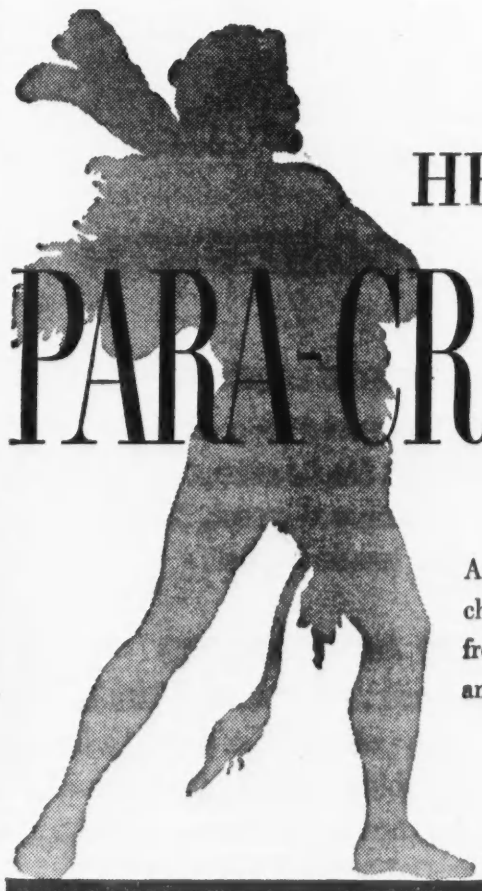

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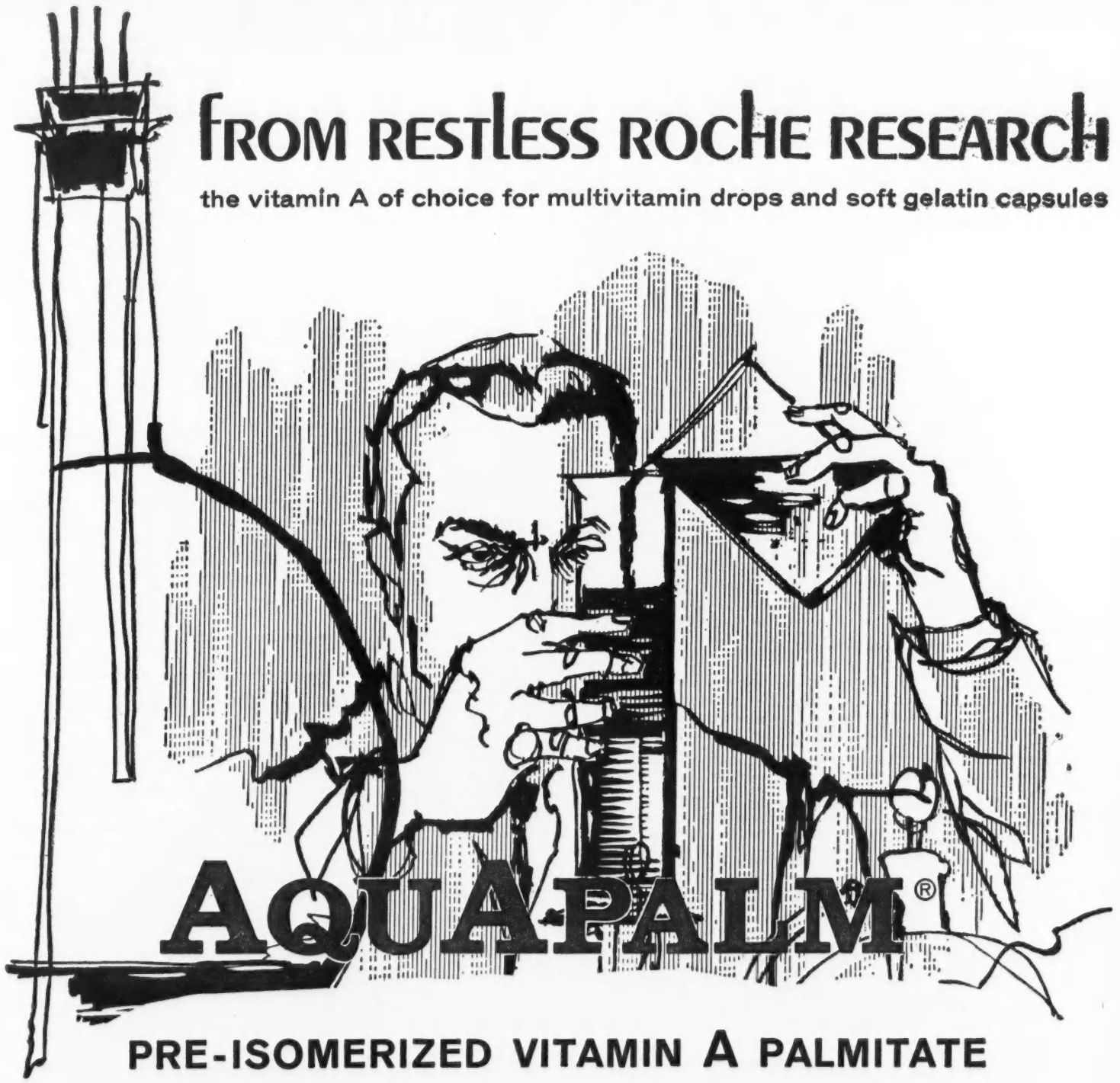

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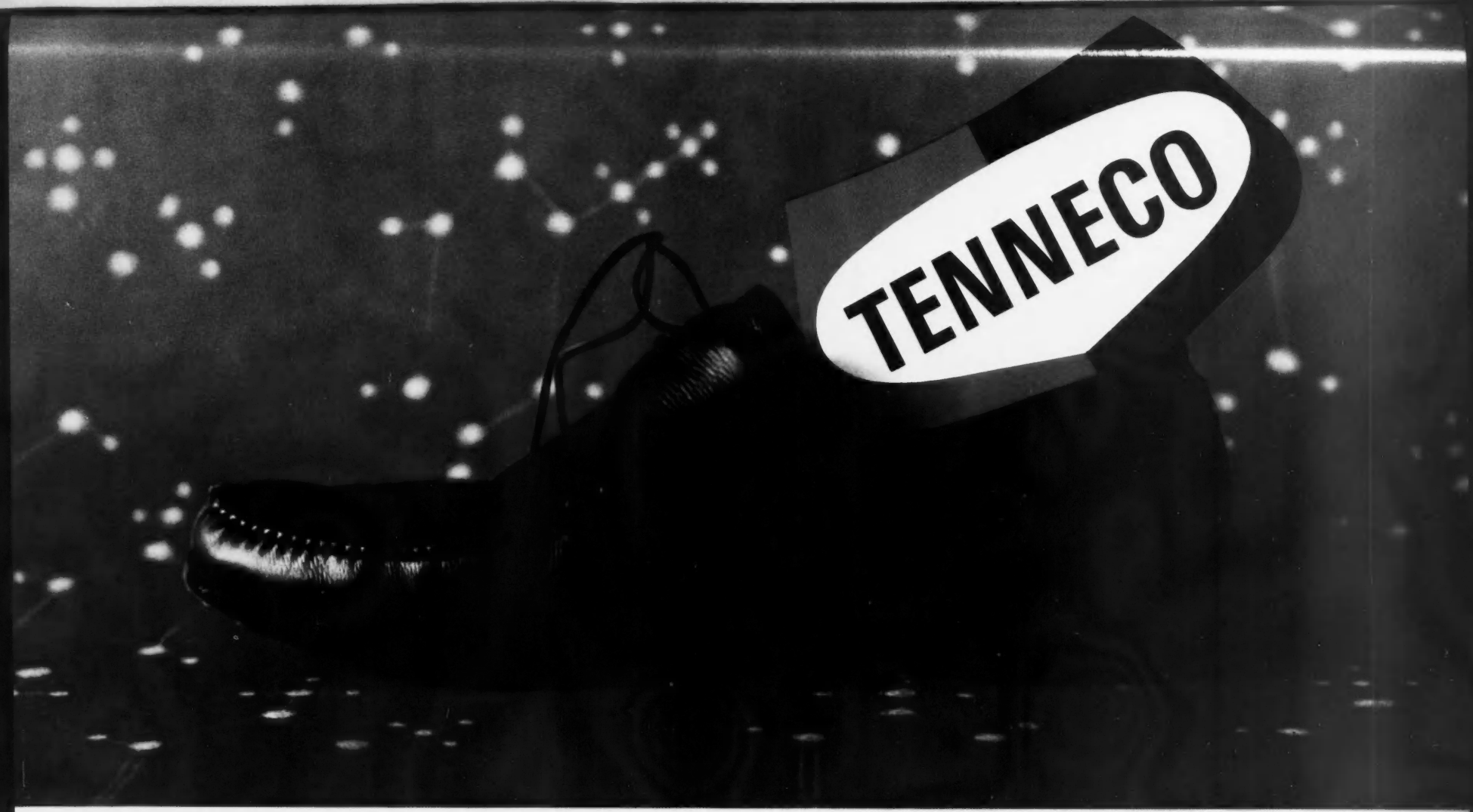

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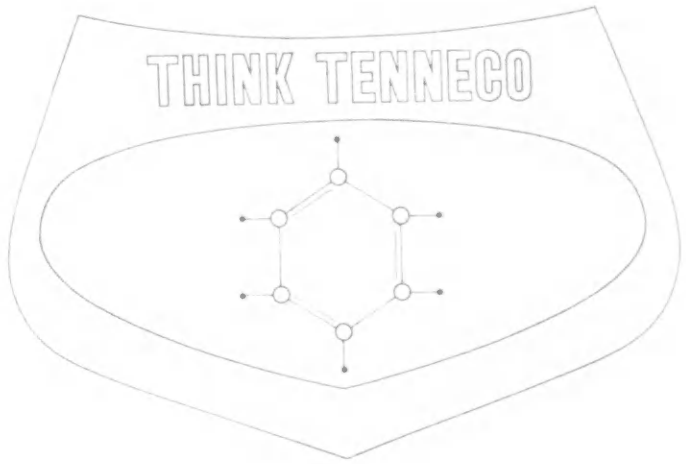
THINK TENNECO

Drugs, Fine Chemicals

A major chemicals producer, primarily associated with organic solvents, has entered the monosodium glutamate market, and though it will not be in volume production until June 1962, it is already offering limited quantities of the food-flavor-enhancing chemical. Two factors presumably prompted the move: First, the firm had idle fermentation facilities, and, second, as a major manufacturer of alcohol, it had an impressive roster of potential customers for MSG in the food processing and condiment fields.

It is in these areas that the firm plans to concentrate its marketing activities. Not surprisingly, it will not offer a brand name form of MSG for retail sale. Not only is this the smaller of three major markets — retail, institutional and food processing—but it is also dominated by a product ("Accent") that has been on supermarket shelves for a long time.

The debut of the new producer may account to some extent for the recent decline in prices. A second factor in the downtrend, reportedly, is the attempt on the part of some makers to sell a broad line of products by giving customers a price concession on MSG.

Since World War II, MSG has attracted major attention in the US. Usage has continued to grow and at least one manufacturer has expanded production facilities with an eye on even greater requirements. At the same time, a competitor has quit the business presumably because its outdated manufacturing process and high raw material costs had killed profits.

A third manufacturer is believed to have halted production and to be currently offering another firm's material. If this is so, there are today five producers in the highly-competitive MSG market.

Aspirin—Aspirin is absorbed into the bloodstream in the same length of time, whether it is buffered, according to results of a clinical study recently reported in the literature.

Under double-blind conditions, two adult-size tablets of buffered aspirin were swallowed by ten male and ten female subjects. One week later, the same subjects were given a similar dose of unbuffered aspirin, under the same testing conditions.

The analysis of blood salicylate levels, the study found, demonstrated "no significant difference between the rate of absorption of buffered or unbuffered aspirin into the blood stream."

Cortisone—August exports of cortisone were valued at $188,767, the Commerce department reports. Destination of major shipments: United Kingdom $68,750; Bermuda $37,666; Italy $14,862; Canada $12,031, and Brazil $9,728.

Exports of hydrocortisone the same month were worth $144,537. Based on reported value the largest buyers were: Canada $41,822; Bermuda $25,696; Brazil $16,950, and The Netherlands, $14,400.

Isoniazid—Public Health Service's recent announcement that isoniazid was found 80 percent effective in preventing tuberculosis among more than 12,000 persons in the homes of tuberculars is expected to increase usage of the chemical appreciably.

The extent of the potential market is shown in studies which show that some 30 percent of the US population harbor the TB bacillus, although they do not manifest the active disease.

There has been little interest in isoniazid on the part of domestic manufacturers since the mid-'50's, because the drug was so effective in curing TB that it found itself without a market within a few years after its adoption.

In addition, the drug was never priced high enough to make it really profitable, sources say.

Imports consequently supply the US market, which today is confined to a few large buyers like the Veterans Administration and state welfare departments.

Magnesium Trisilicate—Contract buyers of USP magnesium trisilicate micronized powder will pay an additional 15c. a pound for the chemical starting November 1. The spot price has already been advanced (October 1).

Under the new schedule, a single 100-pound fibre polyethylene-lined drum lists at 85c. a pound; 500-pound lots in the same size drums at 80c. a pound.

Unchanged, prices for the standard USP powder range from 38c. a pound for 5,000-pound quantities, in drums, to 45c. a pound for a single 100-pound drum.

Saccharin—Imports of saccharin in July amounted to 18,714 pounds, valued at $27,016 and dutied at $5,694. The bulk of this material came, as usual, from Japan (17,614 pounds, valued at $25,241 and dutied at $5,324).

There has been no change in the domestic schedule since mid-March when prices were advanced 10c. a pound. The stability of the official schedule is always questionable, however, because domestic suppliers may be forced from time to time to meet lower prices on imported material.

Tartaric Acid—The Atomic Engineering Commission's Hanford Operations Office, Hanford, Washington, purchased $39,250 worth of tartaric acid for non-military use in August. At current market prices, this represented close to 96,000 pounds. The material was supplied by a US drug and fine chemicals maker which brings in tartaric from Spain under a barter arrangement.

Spain has become the largest single source of tartrates for this country. Italy and France, which have been in the picture for many years, are a poor second and third.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 7, 1960
58.88	58.88	58.88	59.77

For Current Prices See Page 9

Botanicals

Agar—A small factory for the production of agar from local seaweed is under construction near Ponta Delgada, Sao Miguel, the Azores, and will soon begin operations, according to Business & Defense Services Administration, an arm of the Commerce department.

It is reported that a license was granted

Drugs and Fine Chemical Imports: August

Exports of selected drugs and fine chemicals for the months of July and August, 1961, as reported by the Bureau of Census, were as follows:

		August	*July*
Analgesics and antipyretics	lbs.	72,539	61,961
Antibiotics, bulk & dosage, forms, n.e.c.	gms.	21,331,420	19,779,671
Ascorbic acid	lbs.	142,342	31,773
Aspirin	lbs.	101,832	124,749
B-Complex (excluding B_1 and B_{12})	lbs.	33,926	28,809
Bacitracin	100-million-units	8,965	2,625
Dihydrostreptomycin, bulk	gms	2,237,162	10,207,462
Pectain and preparations	lbs.	65,999	81,584
Penicillin, bulk	million units	10,800,504	11,761,776
Streptomycin, all forms	gms	2,664,537	3,279,975
Sulfa Drugs	lbs.	53,321	188,646
Thiamine	lbs.	2,480	853
Vitamin A bulk, medicinal	lbs.	16,294	10,804
Vitamins, bulk, n.e.c.*	lbs.	69,353	41,021

* Not elsewhere classified by the Census bureau.

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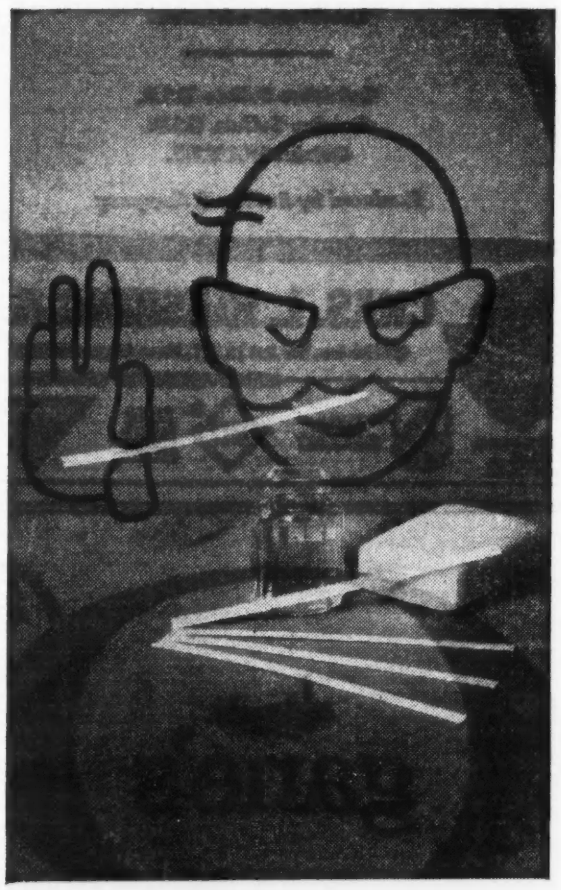

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Drugs, Fine Chemicals

to a local company two years ago, but only recently has sufficient electric power been available to enable it to begin production. The factory will use locally manufactured equipment.

Gum Arabic—US imports of gum arabic in the first four months of 1961 were 5.3 million pounds, up 20 percent from the 1960 level (4.4 million) in the comparable period.

In order to protect their supply position, BDSA notes, importers and consuming manufacturers tend to purchase in sufficient quantity to take care of their advance requirements. Thus, while monthly imports are usually substantial, arrivals can peak one month and ebb the next. The Sudanese source, of course, does not maintain large carry over stocks.

As of May 12, deliveries of gum arabic to local markets in the Sudan amounted to 33,574 metric tons. Exporters estimate that from May 15 until the end of the season, between 5,500 and 7,000 additional tons will have arrived at the markets.

In Mali, approximately 71,000 tons of gum arabic was prepared for export in January-March, 1961, according to the Bamako Chamber of Commerce.

Drug, Fine Chemical Briefs

CAPSULE-BANDING SERVICE: Vitamix Pharmaceuticals, Inc., Philadelphia, has installed new banding equipment that reportedly improves the appearance and efficiency of hard shell capsules made by the firm. The process affixes a gelatin band along the seal of the two-piece capsule and can be used on capsules of various sizes.

FLUORO STEROID HORMONES: Addition of fluorine to the molecule of the steroid hormone, such as cortisone and hydrocortisone, enhances the efficacy of the anti-inflammatory drug and can be accomplished in ways not previously considered, according to Syntex, S.A., Mexico City. The firm already offers one such drug, "Synalar," which is calculated to be 40 times as potent as hydrocortisone.

TOPICAL CORTICOSTEROID: Pruritus and inflammation associated with various dermatoses are reportedly alleviated and controlled by a new topical corticosteroid just introduced by Eli Lilly & Co., Indianapolis, Ind. Under the trademark "Cordran," it is available in a .05 percent concentration, either as a cream or hydrophilic ointment, and with or without neomycin sulfate.

Pest Control Board

—Continued from page 4

have each designated two members to serve on the board.

They are:

HEW—Dr. Robert J. Anderson, Public Health Service, and J. K. Kirk, Food & Drug Administration; Defense—Brig. Gen. O. B. Kendrick, Army, and Capt. Richard T. Holway, Navy; Interior—Robert Paul and Lansing Parker; Agriculture—Dr. W. L. Popham and W. S. Swingler.

Dr. Anderson has been elected chairman of the board.

Ribicoff and Loevinger

—Continued from page 7

president of the American Institute of Chemists.

October 17—Harold M. Vagenius, Chicago patent attorney, Roberts B. Larson, president of the American Patent Law Association, and Thomas M. Ferrill, jr., of the patents committee of the National Association of Manufacturers.

October 18—Dr. Henry B. Haff, director of chemical research of M. W. Kellogg Company, Jersey City, N. J., on behalf of the Association of Research Directors, and Paul S. Bolger, of the New York Patent Law Association.

Essential Oil Ass'n Honors Scientific Section Members

Essential Oil Association honored the members of its scientific section at a luncheon in New York last week.

Legion of honor scrolls were presented to the individual members of the fifteen-man committee, which is headed by A. T. Fiore of Givaudan-Delawanna, Inc., New York.

Founded in 1937 under the chairmanship of Dr. Eric C. Kunz of Givaudan, the committee during the past twenty-four years has established 193 specifications and has published twenty-five test methods to aid in their determination.

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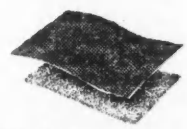

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Talk here is more likely to deal with chromatographic vs. electrophoretic technique than with problems of packaging multivitamin capsules. Actually, vitamin specialists here are scarce. The biochemist with the doughnut, who works for us on fundamental questions of lipid metabolism (even though we employ no detail men to call on physicians), will pick up precious little vitamin trade gossip at this convention. Instead he will keep an ear open to current thinking among biochemists on the use of electronic computers. Statistical evaluation of biopotencies of the various vitamin A isomers discovered in our laboratories needs smart computer-programming methods. No immediate strong effect on the p&l statement is expected.

Nevertheless, a company that wants to deserve its reputation as "leaders in . . . vitamin A" has to take the long view on paying for coffee shoppe doughnuts in out-of-town hotels.

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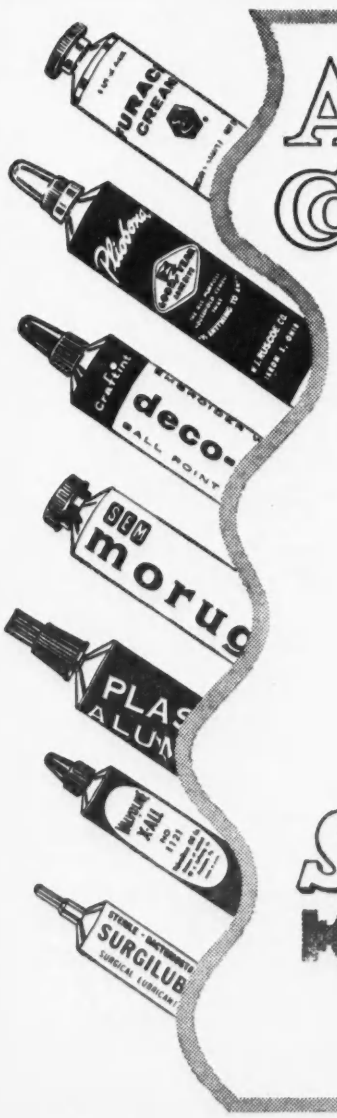
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Trade Name Chemicals

—Continued from page 43

cations. The company offers a wide choice as to viscosity, particle size, flow characteristics, film-forming properties and compounding stability.

Films and coatings produced from the "Gelva" emulsions vary as to adhesion, tensile strength, hardness, heat-sealing temperature and water-resistance.

The emulsions of lowest viscosity give Brookfield readings around 200 centipoises and range up to several thousand centipoises and pH falls within the range of 3.5 to 5.5.

National Starch & Chemical Corporation manufactures vinyl acetate copolymer emulsions under the "Rezyn" tradename. Standard products marketed for the paint industry are "Rezyn 1251," "1252," and "2243."

These products can be formulated in paints for exterior or interior surfaces, although for exterior wood surfaces an oil-based primer is recommended.

"Rezyn 2243" is zinc oxide compatible so that zinc pigments may be used in latex paints formulated with this product. Package stability of such formulated paints, at varying pigment volume concentrations, is reported very good.

National Starch first entered the PVAc picture when it became apparent in the early 1940's that polyvinyl acetate emulsions were to become important for adhesive use.

Thus, the company's resin division built up a backlog of experience in polymerizing and copolymerizing vinyl acetate and other monomers to obtain a variety of resins in emulsion, solution and hot melt forms. This experience was later put to work to produce polyvinyl acetate emulsions specifically designed for paint use.

Trade Name Briefs

ADHESIVES: A new thermosetting adhesive suitable for bonding polyolefins has been developed by Radiation Applications, Inc., Long Island City, N.Y.

Called "Raiseal 5002," the product is expected to find application in areas where poor bonding of polyolefins with existing adhesives or where heat-sealing has presented serious drawbacks.

ANTIFOAMER: Troy Chemical Company, Newark, N.J., reports development of a new antifoaming agent which contains no silicones, does not separate, and is almost water-white. According to the company, "Ex-Foam 333" is the result of almost 2,000 tests run with a large variety of products and is twice as effective as other antifoaming agents now on the market.

FILLER: Great Lakes Carbon Corporation has developed a low-density mineral filler which is being manufactured under a special process using perlite, a siliceous mineral of volcanic origin.

Called "Dicalite Bulk-Aid," the new product is now being used in papermaking and is said to have the lowest bulk density of any known mineral filler.

Preliminary testing suggests early use as a bulking agent in household cleaners, filler and pigment extender in paints and as a filler in non-structural plastic and rubber products.

LATEXES: Food & Drug Administration has cleared certain components in two Dow Chemical Company styrene-butadiene latexes for use in food contact packages. "Dow Latex 630" and "X-3352," used as binders in pigmented paper and paperboard coatings, were cleared in a recent regulation.

'Spunbonded' Synthetic Is DuPont's Latest Fabric

A series of experimental products to be known as "spunbonded" materials has been developed by E. I. duPont de Nemours & Co. Patent applications have been filed covering both the process and the products.

The new structures are not woven, but rather are produced through integration with synthetic fiber manufacturing, duPont explains.

Certain types of the new materials are said to be similar to conventional nonwoven fabrics, but an entirely new technology is involved, reportedly yielding unique tensile and tear properties.

Suggested uses are as interlinings and as base materials for coating and impregnation.

Miles in Papain Market

Miles Chemical Company, a division of Miles Laboratories, Inc., is entering the papain business. Papain refining facilities broaden further the Miles line of enzymes. The Elkart, Ind., firm's Takamine Laboratories unit has been making enzymes for seventy years.

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Petroleum Derivatives

The general but steady improvement in the solvent business which is the result of increasing demand from the paint, plastic, and other solvent consuming industries, is expected to continue for the months immediately ahead. In the case of aromatic solvents, the supply picture is well in balance with demand. Shipments are prompt, and as yet buyers are continuing to lean heavily on this prompt delivery and operate as much as they can on supplier inventories.

So far the build-up in military spending has not caused anyone to deviate significantly with this essentially hand-to-mouth inventory policy. However, simply because business volume all across the board is getting heavier, operating inventories have to be increased modestly, in line with larger scale manufacturing operations. This has not been a large enough factor to cause any great spurt in buying.

Aliphatic solvents are in quite ample supply and production capacity is such that no real or imagined increase in business could bring about any strain on the supply situation. Materials of varying aliphatic composition, boiling range, and evaporation rate are moving in quite good volume. Prices remain firm and unchanged. End-use patterns are just about as they had been.

There is little change in the wax market. Microcrystallines and paraffins are moving just about as expected to the same consuming industries, always threatened somewhat, here and there, by the invasion in certain end-uses from synthetics and plastics.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 7, 1960
104.13	104.13	104.13	103.74

For Current Prices See Page 9

Aromatic Solvents

Benzene—Supplies are considered quite comfortable. Everyone is getting all they want of high quality benzene with very prompt shipment. It can be said that supply and demand are not precisely in balance because the market tends to lean on the side of easy supply. While business volume is seasonally on the increase with chemicals derived from benzene tending to pick up in sales all across the board, the feeling is that benzene capacity is ample to take care of all calls that might develop.

Hard goods manufacture is on the increase, plastics output is looking upward, and military expenditures are being stepped up sharply. These are all things which indirectly will require products into which benzene - derived intermediates play a part.

Buyers, however, see no shortage likely to develop, and feel that in the main they will be able to continue operating largely on supplier inventories, and will not have to build up their own stocks any more than what is physically necessary and desirable, because of a larger volume operating situation in their own plants.

Price pattern of 31 cents per gallon in tankcar quantities is stable, and there is no difficulty in negotiating long term supply contracts at 31 cents, so long as the contract contains a protection clause for the buyer that if prices decline in the market they will correspondingly decline under the contract as written.

Pure Aromatics—Solvents of varying boiling ranges and evaporation rates, but running in excess of 95 percent aromatic, are widely used in industrial finishes where high solvency is required, but where evaporation rates different than toluene and xylene are wanted. Supplies are currently regarded as adequate. Prices remain unchanged in the range of 29 to 30 cents per gallon, depending upon the product.

Toluene—The toluene supply situation is, of course, abundant from a solvent point of view. The producers of toluene keep heavy stocks from building up by using the execess in gasoline to step up the octane rating, or by selling it into export.

Gasoline octane demands are such that while aromatics are run into gas in large volume, a considerable amount of that which has been fractionated into toluene, as such, is being purchased and used in gasoline enrichment. The demand is such in certain geographical areas that toluene of coaltar source is also bought for this purpose.

Price patterns of 25½ cents per gallon delivered in tankcars, seems to be holding quite firm. Of course, where excess stocks move into the export trade, they do so at lower prices. And, where toluene is used in large volume purchases for gasoline, the deal is a negotiated one in which toluene moves at its value in gasoline.

Xylene—The Fall spurt in durable hard goods production, especially automotive products, is leading to improved business volume in solvent xylene. There is no particular excitement in this, just a steady increase in business. Prices are unchanged.

Crude Oil Stocks Climb

Domestic and foreign crude petroleum stocks at the close of the week ended Sept. 23 were 2,650,000 bbls. higher than at the end of the preceding week.

Week ended Sept. 23—250,720,000 bbls.

Preceding week—248,070,000 bbls.

This increase comprises an increase of 3,459,000 bbls. in stocks of domestic crude, and a decrease of 809,000 bbls. of foreign crude.

(Source: Bureau of Mines)

LPG's

Production of natural gas liquids in July increased 5 percent from July 1960, according to the Bureau of Mines, United States Department of the Interior. The daily average production of liquefied gases at refineries was 7.5 million gallons, a decrease of 8 percent from July, 1960.

Production of isobutane in the first seven months of 1961 was 12 percent above a year ago. Demand was practically unchanged and stocks therefore were more than double those of July 31, 1960.

Stocks of liquefied gases excluding ethane, totaled 1,685 million gallons, an increase of 505 million gallons above a year ago.

Butane—July production of butane and butylenes at plants amounted to 169,882,000 gallons, and at refineries to 48,216,000 gallons, making a total of 218,098,000 gallons. Stocks at plants and terminals at the end of July stood at 454,407,000 gallons and at refineries at 87,780,000 gallons. July shipments amounted to 96,247,000 gallons.

Isobutane — Plant production in July amounted to 61,053,000 gallons and at refineries for shipment, 1,092 gallons. July shipments were reported at 54,451,000 gallons. Stocks at plants and terminals at the end of July stood at 92,576,000 gallons.

Isopentane—The Bureau of Mines reported isopentane production for July as amounting to 25,940,000 gallons. Shipments during the month amounted to 26,084,000 gallons, leaving stocks as of the end of July of 3,177,000 gallons.

Propane—Total July output of propane was reported by the Bureau of Mines as amounting to 486,007,000 gallons, of which some 336,991,000 gallons were turned out at plants and 149,016,000 gallons at refineries. Fuel and other uses of propane during July amounted to 377,230,000 gallons, while 3,360,000 gallons were used for gasoline. Stocks as of the end of the month at terminals and plants were 823,637,000 gallons and at refineries 133,728,000 gallons. These figures are all combined figures for both propane and propylene.

Waxes

According to the Bureau of Mines, based on a 280-pound barrel, the production of petroleum waxes in July totalled 498,000 barrels, as against the 450,000 barrels turned out in June, and 456,000 barrels in July of last year. Totals for the first seven months of this year amounted to 3,425,000 barrels, compared with 3,343,000 barrels during the corresponding period of last year.

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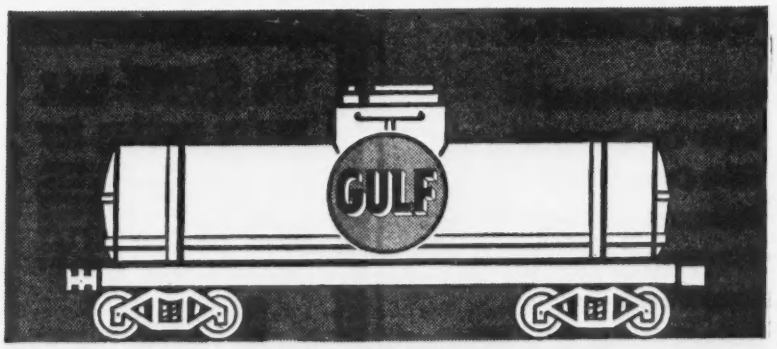

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Oils, Fats and Waxes

The government's request for offers of 200 million pounds of vegetable oil, principally soybean (for prompt and forward delivery) for donation to the needy abroad improved demand for futures and cash oil advancing quotations ⅜ cent per pound. Crude cottonseed oil was easier and lower for prompt delivery. Corn oil continued scarce and strong bids of 20 cents per pound—the highest price paid in ten years failed to attract sellers. Peanut oil remained easy, because of cheaper oil available from abroad. Crude coconut oil was slightly higher as was copra.

Demand for tallow and greases was spotty with soapers and specialty buyers purchasing moderate lots at unchanged prices. Offerings continued light, with sellers naming slightly higher quotations, especially for fancy.

Buying interest lagged in tung oil, but the market remained strong at the highest price since March 1953. Stocks were light and government oil offerings have been withdrawn until further notice. While business in industrial oils was limited, a good demand continued against existing contracts. Linseed and oiticica oils were in steady request against contracts. Brazilian castor oil quiet and unsettled, declining ¼c cent per pound.

Soybean meal was slightly lower and declined 50 cents per ton. Linseed meal was quiet and old process declined $1 per ton.

In vegetable waxes, crude beeswax replacements were scarce and 1 cent higher. Consumer interest in carnauba grades was quiet and fatty was easier while yellows were firm and unchanged.

The Agriculture Department has requested offers for 200 million pounds of vegetable oil shortening and salad oil for distribution to needy persons abroad. The government needs about 50 million pounds of soybean salad oil, 30 million pounds of cottonseed salad oil and 120 million pounds of shortening-type oil. Offers from processors must be received at the department in Washington by 3:30 p.m. (EDT), Monday, October 16 and should indicate weekly deliveries during the period from November 15 through March 1962. The department stated another 200 million pounds will be purchased before June 30 with bids requested early next year.

Price Trends

Advanced

Beeswax, crude, 1c. per lb.
Cocoa butter, 2c. per lb.
Coconut oil, ¼c. per lb.
Copra, $1 per ton.
Corn oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Lard, cash, 1/20c. per lb.
Soybean oil, crude, ⅜c. per lb.
Refd., ⅜c. per lb.

Reduced

Carnauba wax, No. 3 Ceara, 1c. per lb.
Castor oil, No. 1, Braz., ¼c. per lb.
Linseed meal, old proc., $1 per ton.
Peanut oil, crude, ½c. per lb.
Refd., ½c. per lb.
Soybean meal, 50c. per ton.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 7, 1960
110.79	110.79	114.54	107.76

For Current Prices See Page 9

Vegetable Oils

Castor—Trading was restricted to actual needs. Buyers were in the market at sharp price concessions which were not accepted. Market was easy and ¼c. lower. No. 1 Brazilian oil was quoted at 16½c. per pound, tankcars, New York, prompt delivery. Domestic oil was quiet and unchanged.

Import of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	.....	2,700,600
Previous week	.....	4,692,000
Corresponding week, 1960	.....	400,000
Total this year	.....	72,330,000
Corresponding period, 1960	3,353,450	68,340,000

Coconut—Crude was advanced to 11⅛c., per pound, tankcars, f.o.b. Pacific coast, prompt shipment. Interest was slow. The New York market was steadier and held at 12⅜c., tankcars, New York, prompt delivery.

Corn—This market remained strong. Offers of crude were scarce with bids of 20c. per pound, and 20¼c. asked, tankcars, f.o.b. mills prompt shipment. Refined oil was higher at 23.98c., tankcars, New York, prompt delivery.

Cottonseed—Futures were firmer and fractionally higher due to the government's request for offers of 200 million pounds of cottonseed and soybean oils. This bolstered futures and created a better tone while cash oils were unchanged. Refined salad was available at 16c. per pound, tankcars, New York, prompt delivery. Crude oil was slightly lower. Tankcars were quoted at 12c per pound in the Valley for prompt shipment and 11⅞c., Waco. In the southeast, the market ranged from 12¼c. to 12⅜c. as to location.

Linseed — Demand continued active against contracts, while new business was quiet. Raw oil was unchanged at 15.20c. per pound, tankcars, Minneapolis, October-December delivery; 15.40c., February-March and 16.28c., f.o.b. New York.

Oiticica—Trading was spotty, while steady demand continued against current contracts. Tankcars ranged from 14¼c. to 14½c. per pound, New York, for prompt delivery, according to seller. Drums were quoted at 16c. to 16½c., per pound, spot as to quantity.

Olive—Moderate improvement was noted in the demand for spot stocks. Trading was reported at $2.35 to $2.40 per gallon, drums, exwarehouse, according to quantity. Business also took place at $2.25, ex-dock. Shipments from Spain remained steady at $52.50 per 100 kilos, drums, f.o.b. ports for October shipment.

Palm—Spotty demand was noted for actual needs. Drums were unchanged at 14¾c. to 15¾c., spot, as to quantity and 12c., tankcars.

Peanut—This market was lower, because of cheaper foreign oil. Crude was sold at 17½c. per pound, tankcars, f.o.b. mills, ½c. lower. Refined was easier and available at 20¾c., tankcars, New York, prompt delivery.

Soybean—This market was firmer reflecting government plans to purchase 200 million pounds of vegetable oil, chiefly soybean for distribution to the needy abroad. This boosted futures and improved trading in cash oil. Crude was lifted to 10⅞c. per pound, tankcars, Decatur, unrestricted for prompt delivery. Refined salad oil was advanced to 13⅛c., tankcars, New York, prompt delivery.

The Department of Agriculture urged soybean producers to carefully consider using price-support loans and purchase agreements before selling their beans at less than support prices this fall. The officials pointed out that the support program is available to producers against unreasonable price declines. The national average support price for 1961-crop beans is $2.30 per bushel.

Tung—While trading was light and spotty, the market remained on a firm basis. Tankcars were closely held at 30½c. per pound, New York for prompt delivery. Drums were unchanged at 32c. to 32½c., spot, depending upon quantity.

Census Bureau reported consumption of tung oil in August at 3,300,000 pounds, the same total as in July. Factory and warehouse stocks in August were placed at 12.7 million pounds compared with 13.6 million in July.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, October 6, follow:

	Sales	Cents per Pound High	Low	Close
Oct.	249	14.17	13.76	13.90 S
Dec.	482	14.01	13.65	13.65 S
March	212	14.06	13.78	13.78 S
May	118	14.14	13.88	13.88 S
July	29	14.09	13.89	13.87@13.89
Sept.	1	13.90	13.62	13.60@13.73

Total sales and switches, 1,091 contracts.

Miscellaneous

Cocoa Butter—Stocks were scarce and sharply higher. Spot stocks were more or less nominal at 56c. to 61c., depending upon quantity.

Copra—Shipments were quiet and steady. Prompt shipments was quoted at

Oils, Fats and Waxes

$151 per ton, c.i.f. Pacific coast, with bids at $149.

Flaxseed—Bids for cash flaxseed were reduced 4c. last week. About a dozen cars traded in the spot market while to-arrive trades were slow. Rains again delayed the completion of harvest in the northern areas. No. 1 flaxseed was $3.58, bid, spot and to-arrive, basis Minneapolis.

Fats and Greases

Greases—Buying interest continued restricted to prompt delivery. While trading was light, the market remained unchanged and steady. Offerings were limited. Choice white grease was quoted at 7½c. per pound, tankcars, delivered, with bids at ¼c. less. Sales of yellow grease took place at 5c. and 5⅛c., same basis, depending upon quality.

Lard — Market rallied and closed steadier. Drums were quoted at 8c. per pound, Chicago.

Tallow—Business was spotty, chiefly in bleachable grades. Market was steady as light offerings were well held. Bleachable fancy was sold from 5⅝c. to 5¾c. per pound, tankcars delivered, according to quantity. Soapers bids were pegged at the inside figure. Prime was quoted at .05⅜c.; special, .05¼c.; guaranteed fancy was firmer at 6c. and No. 1, ranged from 5c. to 5⅛c. same basis. Export business was light Guaranteed fancy was higher at 6⅝c. built, f.o.b. steamer and drums of 7⅝c., f.a.s.

Cake and Meal

Cottonseed Meal — Trading was moderate. Production is heavy and offerings liberal, prices were steady. Meal, 41 percent was held at $55 per ton, sacked, Mississippi Valley; $58 Alabama and Georgia and $60 Carolina area.

Linseed Meal—Fair demand prevailed for immediate shipment linseed meal as buyers were reluctant to pay the $1 premium for deferred delivery. Withdrawals against existing balances were brisk, shipping schedules were filled. Extracted meal, 34 percent protein, was unchanged at $54 a ton for current week; $55, last-half October through December. Old process expeller meal was $1 lower at $59.50, October; $61, November-December.

Soybean Meal—Only minor recovery developed in this market in the face of rather tight supplies due to delayed harvesting resulting from widespread rains. Meal for unrestricted billing declined 50c., setting the pace for all areas. Weakness was most pronounced in the northwest, where supplies were comparatively plentiful. Meal, unrestricted billing, 44% protein, was held at $51.50 per ton, bulk, Decatur, prompt delivery, $1 to $1.50 discount for deferred.

Waxes, Vegetable

Trading in vegetable waxes last week continued confined to actual needs and lack of volume business, the market was unsettled, especially for carnauba. Fatty was easy, while yellows were steady because of light stocks. No. 3 Ceara ranged from 57c. to 59c. per pound, spot, according to quantity, while Narnahyba, ranged from 60c. to 62c., same basis. Yellows were unchanged. No. 1 Ceara was maintained at 90c. to 92c. per pound, spot as to quantity and Parnahyba, 2c. more. Interest in replacements from Brazil was limited, with low bids refused and light offers closely held.

Firmer tone prevailed in crude beeswax. Offers for shipment were stronger and 1c. higher for bleachable grades for shipment. Refined grades were in fair request and steady.

Petrochems: Who Worries?

—*Continued from page 5*

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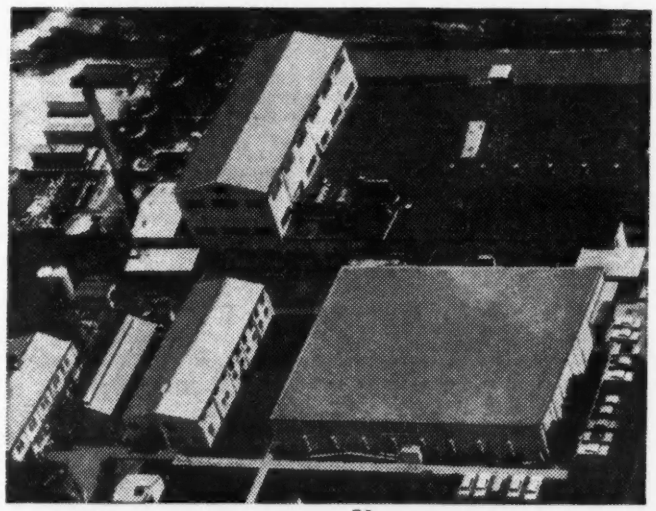

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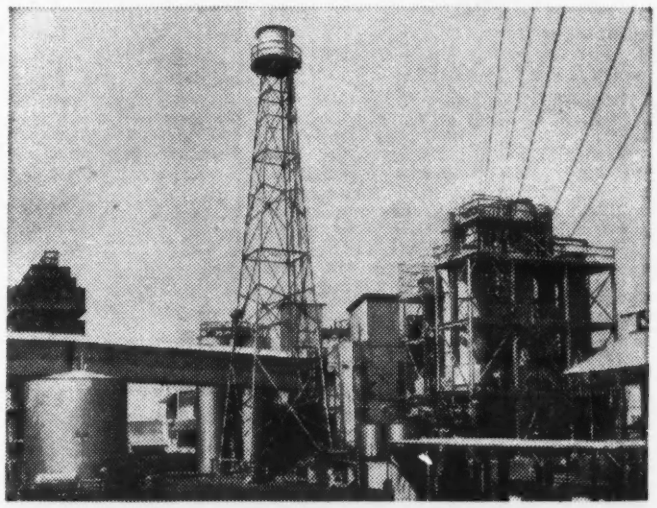

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Essential Oils, Aromatics

Reflecting the tight situation that has existed for some time in lemongrass oil, citral is now difficult to obtain. Spot prices, in some cases have advanced, and in other cases, dealers have simply withdrawn offerings. Lemongrass itself is said to be easing off a bit at source, but this will not be felt on spot for some time to come. Two items last week dropped in price. Grapefruit oil came down 20 cents per pound and chenopodium came down 5 cents per pound. Vanilla beans continue at their previously quoted prices.

Price Trends

Advanced
None

Reduced
Chenopodium, 5c. per lb.
Grapefruit,, 20c. per lb.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Oct. 7, 1860
142.95	142.96	143.39	144.94

For Current Prices See Page 9

The third revision of the Food & Drug Administration's booklet "Read the Label" is now out advising users of cosmetics not to fall for beautifiers with mysterious "miracle" ingredients.

"Cosmetics properly used can help greatly to improve one's appearance. But don't fall for products that claim to restore youthful skin, grow hair on bald heads or other far-fetched promises that appeal to natural desires to be young and attractive. Beware especially of cosmetics claimed to have some mysterious miracle ingredient, such as royal bee jelly, turtle oil or something equally outlandish," the booklet states.

Production of products using essential oils and aromatic chemicals in Denmark showed substantial gains between 1958 and 1959, according to figures from the Department of Commerce. Production of soaps and other washing agents increased from approximately $17 million in 1958 to an estimated total of $20 million in 1959.

Output of perfumery, cosmetics, and toilet articles climbed from about $8 million to $9 million. The department reports that five of the larger soap and washing agent manufacturers are strongly competitive and that two of them which are foreign-owned occupy dominating positions. The financial strength of these companies, which permits them to invest in modern and efficient production facilities and to conduct extensive advertising and sales campaigns, has forced several small producers out of business in the past few years. The number of producers dropped from 32 in 1955 to 22 in 1957 and to 20 in 1959.

Demand for soap in Denmark is met almost entirely by domestic manufacturers. However, imports of synthetic detergents are substantial. In 1960, imports were valued at $3 million which amounted to approximately one-third of total sales.

Production of the principal perfumery, cosmetics and toilet articles was as follows:

Perfume and eau de cologne, $478,000 in 1959 compared with $406,000 in 1958; face powder, $435,000 in 1959 as compared with $232,000 in 1958; face and hand creams and lotions, $1,450,000 as compared with $1,435,000 in 1958; lipsticks, $304,000 in 1959 as compared with $290,000 in 1958; nail polish, $130,000 in 1959 as compared with $101,000 in 1958; deodorant preparations, $304,000 in 1959 as compared with $290,000 in 1958; hair tonic, $290,000 in 1959 as compared with $261,000 in 1958; hair fixatives, $768,000 in 1959 as compared with $590,000 in 1958; shaving lotions, $174,000 in 1959 as compared with $159,000 in 1958; tooth paste, $2,160,000 in 1959 as compared with $1,928,000 in 1958; shaving cream, $261,000 in 1959, unchanged from 1958.

Essential Oils

Apricot Kernel—It has recently been brought to our attention that this oil, which is not an essential oil (rather it is handled by essential oil dealers as a convenience item) is an important part of the diet of the Hunzas.

This community of some 20,000 people, who live in the Himalaya Mountains, have long been known for their excellent health and longevity—some of them living to be 140 years of age.

They eat very little meat or dairy products; their diet consists almost entirely of raw vegetables and fruits. If they cook the vegetables and fruits in water, they drink the water too. They often prepare the vegetables in apricot kernel oil, and they eat the dried kernel itself.

The care the Hunzas take of their apricot trees is phenomenal. Grass, weeds and extraneous plant material that springs up under the trees is pulled by hand—supposedly to allow all the earth's nourishment to go to the apricot tree. The trees are kept under surveillance and as soon as a leaf dies, a worker climbs the tree to remove it.

In the United States, apricot kernel oil is sold to the pharmaceutical industry as well as to cosmetic companies who use it for its lubricating qualities as a substitute for the more expensive almond oil.

Apricot kernel oil, also called persic oil, is not a large-volume item in this country.

Chenopodium—Spot price has dropped from $4.75 per pound to $4.70 per pound.

Dillwood—Spot price continues at $4.40 per pound, but orders are being made for November delivery of new crop material for as little as $4.25 per pound.

Grapefruit—From its previous price, $2.60 per pound, grapefruit oil has come down to $2.40 per pound.

Lavender—Spanish spike continues firm at $1.75 per pound.

Lemon—Spot quantities of material are still scarce, with no indication that any large quantities of oil will be released at source any time soon. Prices continue at their previous levels with odd lots of material bringing prices around the $4 level.

The government in Libya is interested in constructing a citrus processing factory in Tripoli, according to the US Department of Commerce.

The Province of Tripolitania intends to allot funds for construction of a pilot plant. The Provincial Executive Council has agreed to provide the necessary funds, and to instruct the Nazarate of Finance and Economy to get the project underway as soon as possible, the report states. Interested American firms may get in touch with Abd-al-Salaam Braish, the Nazir of Finance and Economy, Province of Tripolitania, Tripoli, Libya.

Sandalwood—Reports continue to come in that the source market is easier. This has not been felt on spot, nor will it be for some time, say the dealers. Within the next month or so, however, spot price is expected to come down about $1 per pound.

Aromatic Chemicals

Citral—Spot price continues at $4.65, but a good many dealers have stopped offering material.

Undoubtedly responsible for this tight situation is the tight situation in lemongrass oil from which a good portion of the citral is made.

Due to heavy rains in India at the time of harvest, the distillation of lemongrass was delayed. Dealers had already let their stocks get low in anticipation of the new crop and when it was not forthcoming, the tight spot situation developed.

From source now comes the word that lemongrass is becoming available, but it

—*Continued on page 62*

Imports Detained at N. Y.

Two Week Period Ending Sept. 22

Black pepper, 18 lots, 1,470 bags.
Cassia, 9 lots, 841 bales.
Celery seed, 5 lots, 758 bags.
Cumin seed, 4 lots, 560 bags.
Mustard seed, 18 lots, 3,028 bags
Nutmeg 7 lots, 860 bags.
Rosemary leaves, 30 bales.

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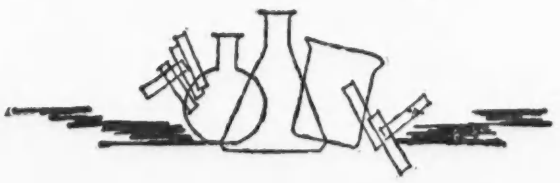

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HF Market Upheaval Is Looming

—Continued from page 5

sources estimate the new plant at 15,000-16,000 tons per annum, although Kaiser says nothing officially).

Regardless of how capacity is utilized now or in the immediate future, current developments in Russia may have great bearing on output technology over the long haul.

The Moscow Scientific Research Institute of Fertilizers, Insecticides and Fungicides imeni Ya. V. Samoylov has developed a two-stage process for producing hydrofluoric acid from the silicon tetrafluoride contained in the waste gases of the superphosphate industry.

According to *Current Review of the Soviet Technical Press*, in the first stage, silicon tetrafluoride is absorbed by a reusable solution of ammonium fluoride; the ammonium silicofluorjde formed is "neutralized" by anhydrous ammonia.

Silicon Dioxide Separated

The resulting ammonium fluoride solution is cooled, the precipitated silicon dioxide separated and the greater portion of the mother liquor concentrated by exaporation while the remaining 10-12 percent is re-used in the process.

Evaporation of the mother liquor until the salt concentration reaches 94-95 percent provides a solid mixture of ammonium fluoride and ammonium fluoride-hydrogen fluoride, an intermediate product for the production of HF containing about 60 percent of the fluorine.

The Russians claim that the precipitated SiO_2, after filtering and washing, provides a valuable filler for polymer materials.

HF Distribution*

	1959	1958
Aluminum fluoride	38,366	21,329
Atomic energy use	20,121	23,088
Glass	1,661	1,035
Fluorocarbons, total	45,244	34,586
Propellants	20,252	—
Inorganic chemicals	1,674	1,136
Petroleum alkylation	6,548	6,362
Rare metals, incl. uranium	2,256	1,223
Stainless steel pickling	4,796	3,529
Dealers	4,182	2,487
Other	23,994	16,294
Total	148,842	111,069

* Tons. Source: Business & Defense Services Administration.

The second stage of the operation: The salt mixture containing about 20 percent ammonium fluoride and 80 percent ammonium fluoride-hydrofluoric acid is decomposed at 180-190 degrees Centigrade by a stiochiomethic amount of 93-95 percent sulfuric acid.

The decomposition yields hydrogen fluoride and ammonium sulfate; 97 percent of the fluoride contained in the salts is separated in the form of HF.

The institute's scientists point out that the method utilizes a new raw material source, leaves no harmful waste products and, according to preliminary data, is more economical than the conventional method for producing HF based on decomposition of fluorspar and sulfuric acid.

US reaction to the Soviet announcement is mixed, most sources in the US pointing out that economic recovery of fluorine from off-gases of the superphosphate industry has been a long-sought goal.

Virtually every producer of superphosphate, hydrofluoric acid or both in this country has taken a hard look at recovery processes. Some observers strongly feel that silicon tetrafluoride decomposition will constitute the major HF source in the not-too-distance future.

Interested Parties Listed

Mentioned among developers of processes for fluorine recovery are Davison Chemical Division of W. R. Grace & Co., Virginia-Carolina Chemical Corporation, Stauffer Chemical Company, American Agricultural Chemical Company and General Chemical Division of Allied Chemical Corporation.

Biggest bugbear in American development so far has been economics of recovery. Sources close to US-patented processes tend to be skeptical of the Russian claims that their new method is more economical than present fluorspar-sulfuric acid techniques employed generally.

While US producers rely on sulfuric acid-reduction of calcium fluoride, it's contended, at a glance it can be shown that the Soviets must use two raw materials—ammonia and sulfuric acid—to wrest the fluorine out of waste gases.

Such claims must be based largely on value of byproducts of the process, such as ammonium sulfate and silicon dioxide, it's believed here. Most US processes are based on the direct attack of SiF_4 by decomposing agents such as sulfuric, rather than on multi-stage processes.

Further militating against anything like an industry-wide shift of off-gas recovery in the near future in the US is current free availability of fluorspar, both domestic and Mexican, at what is generally called a reasonable cost, and unwillingness of producers, both present and prospective, to make capital investment in new plant facilities in the face of current long capacity and competitive market conditions.

Kaiser to Invest $6 Million

Kaiser will spend $6 million on HF and fluorocarbon units at its Gramercy, La., plant. These will be integrated with a $1.4 million aluminum fluoride plant previously announced (OPD, 12/5/60).

Distribution and technical services are being established to market the hydrogen fluoride and fluorocarbon products which will be available for sale from the new plant.

BDSA, in its report on HF, says that there will be ten producing firms and thirteen plants at the end of 1962. A decade ago, seven companies were producing at eight locations.

The government agency concedes that the breaking-down of HF production between chemical and captive aluminum producers is difficult because of the variation of reporting methods by aluminum firms making fluorides of aluminum and other chemical products, and by chemical firms producing aluminum chemicals.

BDSA does point out, however, that reported capacity as of January 1, 1961, for two aluminum company plants and a third chemical-company owned plant that produces for the aluminum industry was 82,700 tons annually of 100 percent HF.

If production of HF is projected for capacity operation, based on 1959 survey data and including all reported expansions, total requirements for acid-grade fluorspar would approximate 540,000 short tons and for sulfuric acid, 720,000 tons basis 100 percent H_2SO_4.

DuPont Disposal Plan

—Continued from page 5

ment since, according to Judge LaBuy, there were no allegations in the original antitrust complaint or finding by the Supreme Court regarding Christiana's GM holdings.

Christiana owns 533,500 shares of GM stock and about 27 percent of the outstanding duPont stock.

In addition to divestiture by duPont and Christiana of their GM holdings, the final judgment proposed by the government also asks that they be barred from:

- Acquiring any more GM stock, except splits they would be entitled to under present holdings.
- Having any director or official in common with GM.
- Nominating or proposing anyone as a GM official.
- Entering into any contract which grants to either duPont or GM exclusive patent rights, or grants to duPont preferential rights to produce or sell any chemical discoveries made by General Motors so long as duPont or Christiana owns any GM stock.
- Agreeing to the ownership or operation of a commercial factory or business enterprise owned by GM stockholders.
- Holding stock in any company in which GM is a stockholder.
- Dealing with GM on products, developments or patents under conditions more favorable to duPont than its competitors.

McKesson's Move

—Continued from page 5

percent as a direct result of the sensational charges.

In addition, marketing plans have been handicapped, he says, "and, in a few instances, [government investigations] have encouraged expediency rather than foresighted reason to prevail in drug manufacturing strategy."

Besides failing to gauge the public's price consciousness, the industry, Dr. Nolen feels, has neglected its overall public relations needs.

It has failed "to get across to the American consumer—through a positive public relations program—the story of the real scientific achievement within the industry, the undeniable gains made for better public health and longer life, and the true costs involved in research and marketing of the drugs of the past decade."

Coating Materials

Aluminum paste and powder pigments were reduced 1 cent per pound across the board last week, reflecting a previous reduction in metal prices of 2 cents per pound. This one cent was passed along to consuming industries despite accumulated increased costs which manufacturers have long been absorbing. The lone exception to the aluminum powder price reduction was on atomized aluminums, which remained unchanged.

Both colored and white pigments remained unchanged. Organic toners and pure iron oxide hydrate pigments were moving in routine fashion. While September had been slow, October is expected to show a good gain, especially if all auto strikes and hold backs are straightened out in time to permit full scale auto production in the last half of the month.

Zinc oxide pigments, both pure and leaded, are in abundant supply for prompt shipment, and all the more so because September demand was slower than it was expected to be. Buyers are tending to operate on supplier inventories, maintaining a hand to mouth purchase policy. Any shift away from this policy would result in quite a business spurt, but is presently considered unlikely because there is no foreseeable shortage on the horizon. Military spending is not regarded as likely to induce any significant laying in of stocks. Military hardware demand for equipping extra manpower is such that business will take it in its stride without it making much more than a ripple.

Price Trends

Advanced
None

Reduced
Aluminum Paste and Powder, 1c per lb.

Comparative Price Indexes
(100 = 1949 average)

Last week	Prev. week	Last month	Oct. 7, 1960
104.69	104.69	104.69	103.13

For Current Prices See Page 9

Prime Pigments

Aluminum Pigments—Despite accumulated high costs which the industry has long been absorbing, manufacturers of aluminum paste and powder passed on to consuming industries a 1 cent per pound price reduction on these materials, as a result of the 2 cent price reduction in metal made earlier in the month. Aluminum paste and powder, except for the atomized grades, were all reduced 1 cent per pound across the board.

Under the new price schedule, a 200-lb. drum of aluminum paste, or a 250-lb. or 300-lb. drum of powder moves at one cent under former schedules, making a single drum of the more widely used standard paste 47½ cents per pound instead of 48½ cents, and a single drum of standard lining powder 82 cents instead of 83 cents. Extra fine lining paste that had formerly been priced at 71 cents, is now priced at 70 cents; and extra fine lining powder which had been $1.13 per pound is now listed at $1.12 per pound.

Iron Oxide Pigments—The pure iron oxide and hydrate colors continue to move in moderately sustained good business volume under a firm price structure. September business was not as good as had been expected, but October is therefore likely to take a sharper upturn than otherwise, especially once the auto industry strikes are settled and full scale new model production is under way.

Synthetic Resins

Polyurethane Resins—The Food and Drug Administration has cleared polyurethane resins as safe for use as a food-contact surface for dry bulk foods. The application for clearance was made by one of the major producers of polyurethane. It was cleared under the food additives law.

Miscellaneous

Casein—As September ended, prices of casein ranged just about as they had at the beginning of the month. Argentine casein stock were reported as light. Argentine production has reportedly been held back by serious drought conditions. Generally, trading was quiet, although there were reports of some increased buying interest in some sections of the domestic market.

The USDA reported trading in Argentine casein was mostly at 18½c. per pound, with occasional deviations both higher and lower. Polish offerings were limited. French advanced in price due to European commitments, and limited supplies partially induced by arid weather. Some future shipments of Australian was offered at 20 to 20½c. per pound. An occasional lot of Polish was locally available on spot at 19 to 19¼ cents per pound.

Shellac—There seems to be no clear cut price outlok on shellac because of the still unsettled arguments between the Shellac Association and the Indian government with respect to the establishment of price floors. Meanwhile, since the disagreements have been going on for months, shellac importers just keep on doing business as usual with little or no deviation from price structures which have existed unchanged over recent weeks. Trading is quiet.

Naval Stores

According to the USDA over-all rosin sales amounted to 8.712 drug equivalents compared with 6.916 last week and 4.206 the week before. Sales, F.O.B. plants, prompt shipment in drums ww $11.75-$12.50, mostly $11.85-$12.50; wg $11.67-$12.08; nancy $11.70-$11.90, mostly $11.75-$11.90; m and below $11.65-$11.73; mostly $11.65-$11.70. Tank cars, nancy $11.25, m and below $11.25. Bags, nancy $12.15, m and below $11.50. Forward drums ww $12.50, wg $11.60. Bags, m and below $11.50. Sales, export fas ports, drums, prompt, ww $11.92-$12.00, mostly $11.95-$12.00; wg $11.85-$12.23, mostly $11.85-$11.90; nancy $11.80-$11.85, m and below $11.80-$12.00. Forward wg $11.80.

Turpentine—Over-all sales 119,485 gallons compared with 70,800 gallons last week. Tank cars F.O.B. plants. Prompt 23 to 31c. per gallon mostly 23 to 24 cents. Forward 23 cents. Drums export fas ports, prompt—new galvanized lined 46 cents per gallon used galvanized plain 39c., used black iron 37 to 37¼c. per gallon.

Average price paid producers for commercial pine gum last week was $32.90 per barrel. Receipts of 22,200 barrels were 4,900 more than same week last year.

Average commercial crude gum price $32.90 per standard barrel week ending September 23, previous week $33.10, year ago $45.70 m loan price this week $27.30. Volume of gum delivered this week 22,200 including 6,469 loan, previous week, 23,179 including 4,015 loan, year ago 17,300 including 90 loan. Average barrel content turpentine 10.11 gallons, rosin 299.5 pounds. Gum grading 45 ww, 24 wgn 12 n, 19m.

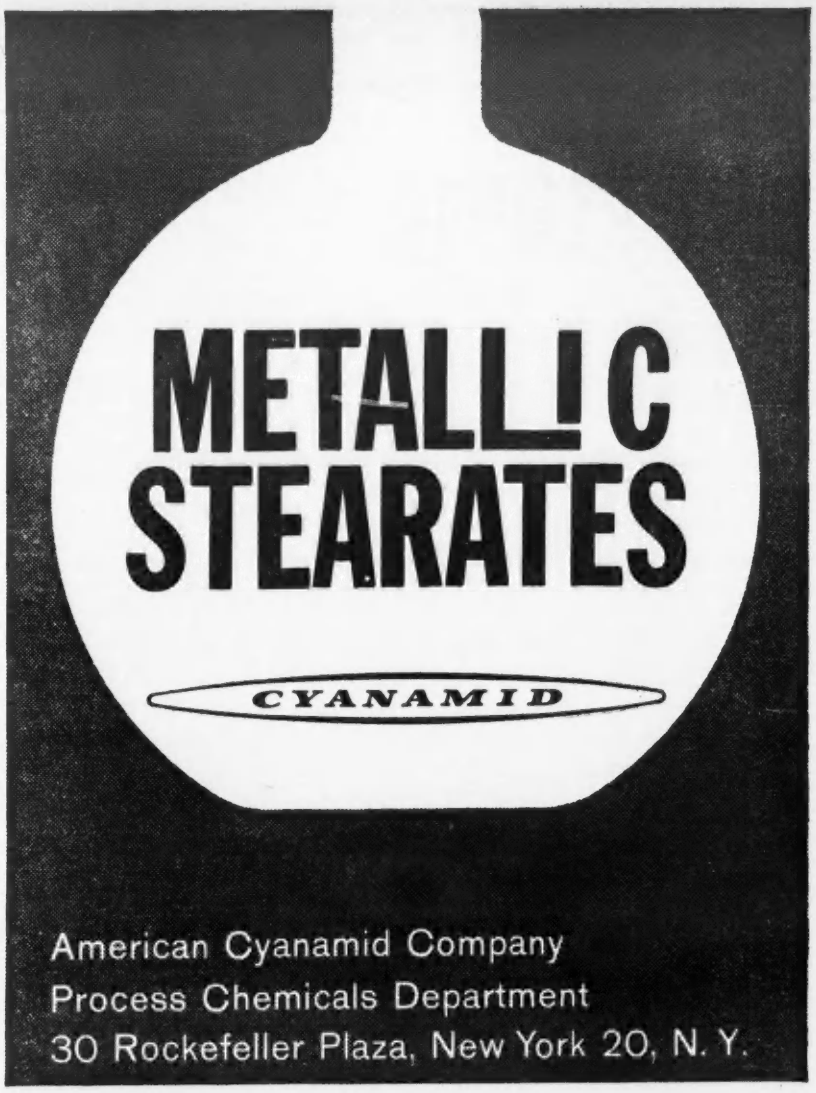
Coating Materials Briefs

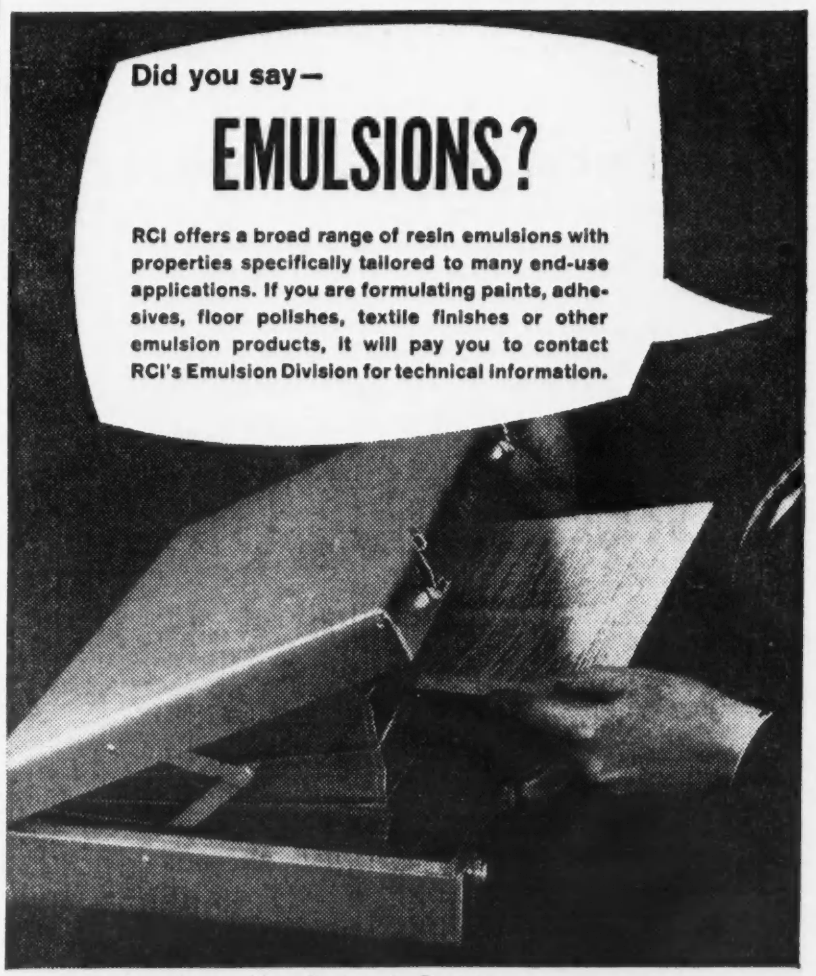
HEAT - REACTIVE HYDROCARBON RESIN: Pennsylvania Industrial Chemical Corporation, Clairton, Pennsylvania, has developed a new lost cost heat reactive hydrocarbon resin designated as "Piccodiene 2215." The resin is a highly aromatic polymer with unsaturated double bonds used in fast drying varnishes, printing inks, and adhesives. It is also avail-

Coatings Shipments and Output: August

	Factory Shipments Dollars		Reported productions Gallons	
	August	July	August	July
Trade Products, total	$103,600,000	$99,500,000	32,000,000	30,200,000
Paints and Varnishes	100,300,000	96,600,000	31,400,000	29,500,000
Lacquer	3,300,000	2,900,000	600,000	700,000
Industries Finishes, total	66,100,000	55,600,000	27,600,000	23,700,000
Paints and Varnishes	49,000,000	42,400,000	20,300,000	18,200,000
Lacquer	17,100,000	13,200,000	7,300,000	5,500,000
Overall Total	169,700,000	155,100,000	59,600,000	53,900,000

Total Sales—Jan.-Aug.: $1,313,700,000.

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Coating Materials

able in a rubber grade, designed to raise heat and abrasion resistance and promote high tensile strength. It is available as a solid resin, flaked, or in a mineral spirits solution.

NEW PLASTICS SOCIETY: A Urethane Commercial Group, representing the rapidly growing urethane foam industry, has been established within the Cellular Plastics Division of the Society of Plastics Industry.

The Urethane Commercial Group represents flexible and rigid foam producers, raw material suppliers and machinery manufacturers.

Chairman of the Urethane Commercial Group is John Hull, Manager of Urethane Chemical Sales, Allied Chemical's National Aniline Division. The Foam Producers Committee is headed by John Gulick, Sales Manager, Nopco Chemical Co., and the Raw Materials Suppliers Committee under the chairmanship of William A McGregor, manager of Foam Chemicals Sales, Mobay Chemical Co.

Additionally, a Urethane Public Relations Committee has been organized under the chairmanship of James P. Foley, Publicity Manager, Allied Chemical's National Aniline Division.

SILICONE COMPOUND REDUCED: The General Electric Company's Silicone Products Department, Waterford, N. Y., has reduced the price of "LTV-602," a new clear silicone potting and embedding compound which it put on the market early this year. The department, which developed the material, also announced that it was being added to the list of G-E silicone products which its electrical distributors will handle.

The price reduction, which is effective immediately, decreases the one pound price by $1, from $10.50 per pound to $9.50. The quantity purchase price per pound hits a new low of $5.90 under the schedule, representing a $1.10 per pound cut from the previous level. GE attributed the new prices to increased volume demand resulting in larger-scale production.

Essential Oils

—Continued from page 59

will be some time before this relief is felt on the spot market and even longer before it is felt in the citral market.

Citral is found in oils of lemon, lavender, sweet orange, geranium, ginger, eucalyptus bay, basil, lime and verbena.

Methylanthranilate — Spot price continues at $2.20 per pound, but reports are heard of a price rise.

Methylanthranilate, which is used extensively in grape flavors, is found in various fruit juices, including grape juice.

It also occurs in the citrus oils of mandarin, orange, lemon and bergamot as well as in ylang ylang, robinia, jonquil, jasmin, tuberose, gardenia, neroli and orange flower.

Seeds and Spices

Cardamons — Guatemala decorticated material has dropped in price from $2.53 per pound, to $2.50 per pound. Other grades of material remain substantially at their previous prices.

Cinnamon—The market is a bit weak. Dealers report that the No. 0000 grade has dropped from 64 cents per round to 62 cents per pound. The No. 2 grade remains at its previous price, 56 cents per pound.

Pepper—Prices moved both up and down, according to reports from dealers in the spices. Malabar black dropped from 45½ cents per pound to 45 cents per pound; Lampong black dropped from 45 cents per pound to 44½ cents per pound, and Muntok white advanced from 53 cents per pound to 57 cents per pound.

Turmeric—The market is generally firm. Alleppey advanced from 22 cents per pound to 28 cents per pound and Madras advance from 18 cents per pound to 19 cents per pound.

Formosan remains at 17 cents per pound, and Jamaican remains at 17 cents per pound.

Essential Oils Briefs

PERFUMER VISITS US: Edouard Hache, director general of Firmenich et Cie, Paris, is currently visiting the United States. Mr. Hache, whose headquarters are the Firmenich Inc offices in New York, will visit many perfume and cosmetic firms.

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Doctor's Dilemma Answered

—Continued from page 6

possible side effects and contraindications."

He argued that the above amendment to the present section 15 of the FTC law would have the salutary effects. It would:

- Adequately remind the physician that the advertisement of a prescription drug does not necessarily tell the full story of the product and would refer him to the appropriate source of such story.
- Preserve the accepted character of prescription drug advertisements as essentially reminder pieces that present only salient facts.
- Allow the medical journals to continue their important role of providing the physicians with current scientific reports.
- Draw increased attention to and thereby further the full disclosure program of the FDA and other groups.
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5489 C3—Colton Stainless Granulator (same as above; no sifter)
3429 A7—Williams Hammer Mill 24" x 15"; requires 60 HP
8113 B2—Jay Bee Model T Hammer Mill; 36 Hammers; 12" x 15⅛" Feed
3429 A9—Gump Bar Nut No. 40 Hammer Mill 12" 40"; requires 60 HP
3529W—Bauer 24" Double Runner Attrition Mill with two 20 HP motors
3315 E2—Williams Ring Roll Lab. Mill 3 rolls; 10" x 3" with Cyclone and Dust Collector
3120—American Ring Roll Crusher; 30" x 37" throat; 50 HP
8356N—Two Sturtevant 30" STAINLESS STEEL Micronizers with Syntron Vibrators
5440 P4—Szegvari Stainless Lab Jacketed Attriter
3293 N10—Raymond Screen Mill 9" x 18"
5272 P6—Raymond Pulverizer Mill Model #00
4062 K6—Raymond Imp Mill No. 6000; direct drive 10 HP

MUST MOVE IMMEDIATELY
FROM PRESENT LOCATION—TREMENDOUS PRICE SAVING
FOR QUICK ACTION

Allis Chalmers machinery for entire raw and finish grinding departments. Capacity 4000 barrels per day. Mills and Separators may be purchased separately.

RAW END (WET): Two 7' x 22' Mills (two compartment).
FINISH GRINDING: Three 7' x 22' Mills (single compartment).

Each of these mills has Meehanite liners, feeder and direct coupled 400 HP 3/60/2200 V. motor. Operated in closed circuit with three 14-ft. Raymond DOUBLE WHIZZER Mechanical Air Separators, new in 1950, each V-belt driven by 75 HP motor. Connected bucket elevators, screw conveyors, feeders, etc., included.

MIXERS

4343 D—7 Baker Perkins Heavy Duty Jacketed Mixers Sigma Double Arms; Size 17; 200 gal. working
5070 F1-2—Stainless Lined Double Sigma Vacuum Mixers; 300 Gal. 56" x 50" x 44"; with 60 HP Motors
4921 T53—Baker Perkins Hexagonal Jacketed Baratte; 150 Gal. good for Vacuum; 36" x 39"
4261—Jacketed Crutcher; 100 Gal. 36" x 24"; bevel gear drive
5475 T1—Lancaster Counter Currebt Batch Mixer; 12" x 5" Pan; 6" Muller
3668-H1—Lancaster Model EAG 3; diameter 45⅝"; 5½ cu. ft.
5512—Patterson-Kelley Twin Shell Blender; 5 cu. ft. Motorized
5471 B1-2—Sturtevant Rotary Blenders Size 7; 7' x 40'; 125 cu. ft. Motorized
M29 A402—Struthers Wells Rotary Blender 6' x 6'
5005—Blaw Knox Conical Blender 9'6" Dia; 10,000 lb.
M29 C800—Sturtevant No. 12 Rotary Batch Blender; 450 Cu. Ft. 40 HP
5360—Day MOGUL Double Arm 150 Gal. Jacketed Mixer good for Vacuum; 75 HP
4792 D8—J. H. Day 2½ Gal. Pony Mixer; Stainless Paddles and Can; ⅓ HP motor

CENTRIFUGALS

4483 G27—Tolhurt 40" Rubber Covered; Perforate Basket; 5 HP
5504—Western States 40" STAINLESS Steel Perforate Basket; 25 HP Vertical Motor
4507 A-16—Six Tolhurst 40" Suspended type centrifugals Rubber Covered Perforate Basket and Curbs; Monel Plow; 2 Speed Motors, 7½-15 HP
5147 S13-14—Two Bird 24" Continuous Horizontal Centrifuges in MONEL and Rubber Covered
4279 L1—Sharples H2 Nozzlejector; 15 HP XPL; 100 GPH
3248 M3—Sharples Supercentrifuge MB4-21-1JY S/S
4737 A-18-19—Two Sharples Super Centrifuges Type M85-34-5 with 2 HP motor
5161 B6—Sharples Stainless Steel Pressure Tite No. 16 Centrifuge
4311 S1—Sharples C 27 Super-D-Hydrator in Type 316 Stainless; 40 HP
4737 A20-21—Two De Laval Centrifugal Oil Clarifiers; Model 65 N13
4945—De Laval Industrial Hermetic Separator No. VO-244 in Type 316 Stainless with motor
3269—Sharples DeWaxing Centrifuge; Type DM202-23C
4081 N22—Patterson-Columbia Separator Centrifuge; Non-Corrosive; 7½" HP
4366—Podbielniak Counter Current Solvente Extractor; Type 316 contact parts

FILTERS—FILTER PRESSES

8340 W12-15—Two Aluminum Plate & Frame Filter Presses 7" x 7"; 10 Chambers
4831 D20-21—Two Sperry 10" Ni-Resist Filter Presses; 8 chambers
4682 D1—Sperry 12" Type 316 Stainless Filter Press; Type 47; 4 eye; five chambers
4831 D6-7—Two Sperry 12" Ni-Resist Type 41 Filter Presses; 8 Chamber
4041 P6—Shriver Aluminum 12" Filter Press; 2 eye; Closed Delivery
4831 D3—Sperry Ni-Resist 12" Filter Press Type 41; 16 chambers
5020 S10—Herman Bronze 12" Pl. & Fr. 8 Chamber Filter Press
4041 P5—Shriver 18" Aluminum Filter Press; 18 chamber; 2 eye C. Del.
5041 D2—Sperry 18" Stainless P. & F. Type 41 Filter Press
4648 D1—Sperry 12" Type RC Stainless Filter Press
5540 T21—Special Lot of J. H. Day Round Recessed Plate Open Delivery Filter Presses; 18" and 24"
4388 D2—Shriver Cast Iron Pl. & Frame Filter Press 24"; 4 eye; closed del. ratchet closing
4755 D1-3—3 Shriver Cast Iron 24" Filter Press; Three Eyed; Closed Delivery; Ratchet Closing
5540 T20—Special Lot of SHRIVER FILTER PRESSES in Cast Iron, Wood, Ni-Resist; 24"-30" 36" (also many Skeletons)
5134—Sperry 30" Pl. & Fr. Ni-Resist 24 Chamber Press
3787 E5—Shriver 30" C.I. 30 Chamber P.&F. O.D.
4343 D13—Sperry Cast Iron 30" Plate & Frame Press
1501 M4—Sperry 30" Type 31 Wood P. & F. Filter Press; 40 chamber; Hydraulic Closing
3989 K1—Independent 32" Wood Pl. & Fr. 48 chambers; 2 eyed; cl. del.
4254—Shriver STEAM JACKETED 36" Filter Press; C.I. 29 chambers; Seco cl.
3834 E6—Sperry 36" Type 41 Filter Press; Hydr. Closure; Cl. Del.
3673 L41—Sperry 36" Aluminum Filter Press 33 chambers; 4 eye with hydraulic closing pump and motor
4352 A1—Shriver C.I. 42" P.&F. Filter Press; 4 eye; closed delivery
3168—Sweetland Filter No. 2 12 leaves; 2" centers
4054 E2—Sweetland Filter No. 2; lead lined with 12 copper leaves
F14 R855—Sweetland No. 12 Pressure Filter having 48 Copper leaves; 670 sq. ft.

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LIQUIDATIONS— LITTLE ROCK, ARK. ORANGE, TEXAS OMAHA, NEBRASKA

STAINLESS STEEL TANKS

3—20,000 gal. vert. T316LC SS crystallizing tanks, 14'x15' cone bottom, cone top, 3/8".
6—13,300 gal. vert., T321 SS, 11'10"x15'x7".
1—12,000 horiz., T304 SS, 9'6"x20', dished, UNUSED.
2—5700 gal. horiz. T304 SS, 6'4"x24', cone heads—UNUSED.
2—4500 gal. vert., T304 SS, 8'x12', cone bott.—UNUSED.
18—3650 gal. vert., 10'x7', open top, 3/16".
1—3400 gal. horiz., T304 SS, 6'6"x16', dished.
1—3350 gal. vert., T304 SS, 8'x8'6", dished, 50 psi WP, w/Agit.
1—3300 gal. vert., T304 SS, 6'x14'6", dished.
1—3250 gal. vert., T316LC SS, 6'x15'10".
1—3200 gal. vert., T304 SS, 6'6"x12', dished.
2—3000 gal. vert., T304 SS, 6'x15', dished.
3—3000 gal. horiz., sanitary milk tanks.
3—3000 gal. vert., T347 SS, 5'x19', ASME 60 psi.
2—2600 gal. vert., T316 SS, 7'x8', dished, coils.
1—2350 gal. vert., T304SS, 5'x16', 3/16", coils.
1—2250 gal. vert., T316LC SS, 6'x8', flat heads, 3/16".
1—2100 gal. vert., T316 SS, 7'x6'3", dished.
5—2100 gal. vert., T304 SS, 8'x5'6", dished.
1—2100 gal. vert., T316 SS, 6'x9'10".
1—2000 gal. vert., T304 SS, 8'x5', cone.
1—2000 gal. horiz., T304 SS, oval.
1—1650 gal. vert., T304, 5'x11', dished.
60—1350 gal. horiz., T347 SS, 4'x14', coils, dished, ASME, 60 psi WP.
1—1300 gal. vert., T304 SS, 6'x6', dished.
9—1300 gal. vert., T321 SS, 7'x4'6".
1—1200 gal., vert., T304 SS, 4'x12'6", dished.
3—1100 gal. vert., T347 SS, 4'x11', 60 psi.
2—1000 gal. vert., T304 SS, 4'6"x8'6".
4—1000 gal. vert., T304 SS, 6'x5'.
1—90 gal. vert., T304 SS, 6'x4', dished.
3—850 gal. vert., T304 SS, 4'x9', dished.
1—800 gal. vert., T304 SS, 5'x5'6", dished.
3—750 gal. vert., T304 SS, 5'x5', dished.
6—685 gal. vert., T316 SS, 3'x13', coils.
1—600 gal. vert., T316 SS, 5'x4', dished.
1—575 gal. vert., T304 SS, 5'x5'.
27—476 gal. vert., 4'6"x4', open.
54—475 gal. vert., 6'x12', open.
1—375 gal. vert., T316 SS, 4'x4'.
3—300 gal. vert., T347 SS, 4'x3', dished.
100—TANKS, 285 to 14 gal., all sizes, types, etc.

DRYERS — KILNS

5—F. J. Stokes #138J-16 Vacuum Shelf Dryers, 195 sq. ft., 16 shelves.
1—Buflovak 98 sq. ft. Vac. Shelf dryer.
2—Buflovak 42"x120" Dbl. drum dryers, ASME 160 psi drums, 1950.
1—American 42"x120" Dbl. drum dryer, all stainless access., 100 psi.
1—Buflovak 32"x52" Dbl. drum dryer.
1—American 36"x84" Dbl. drum dryer, in vacuum chamber, ASME.
1—Buflovak 6"x8" Dbl. drum dryer, Vac.
1—Buflovak 5'x12' single drum VACUUM dryer—UNUSED.
1—Vulcan 10'x11'x175' long rotary kiln, 2-tires, 13/16" shell.
3—10'x100' rot. dryers, 5/8" welded.
1—Link-Belt #900-30 Roto-Louvre dryer.
2—Bartlett & Snow 8'x6"x70' rotary dryers, 5/8" welded, 1952, w/fans, etc.
1—Davenport 8'x60' rot. dryer, 7/16" welded.
1—Allis-Chalmers 7'x120' kiln, 5/8".
1—6'x150' rotary kiln, 5/8" welded.
1—Link-Belt #604-18 Roto-Louvre dryer.
1—Louisville 5'x30' steam-tube dryer.
2—Louisvile 4'x6"x25' steam-tube dryers.
1—Standard Steel 3'x23' rot. dryer.
1—3'x15' Everdur shell dryer.
1—12"x8' Stainless rot. dryer.

AUTOCLAVES — KETTLES — REACTORS

1—2000 gal. Glascote blue G/L reactor, jacketed, ASME vacuum int., 95 psi jkt.
65—1400 gal. Pfaudler blue G/L jacketed kettles, Stainless cover, 3 HP Agit., baffle.
4—1350 gal. T347 SS jkt. kettles, Agit.
14—1250 gal. Pfaudler blue G/L jacketed closed reactors, Agit. vacuum, w/cond.
1—1000 gal. Dopp Cast Iron Kettle, 125 psi jacket, 25 HP anchor Agit.
1—1000 gal. T316 SS jkt. reactor, ASME, UNUSED.
2—1000 gal. Patterson steel dissolvers, jkt. & Agit.
4—800 gal. Struthers-Wells T316ELC SS clad autoclaves, 3'-6"x10', horiz., ASME 400 psi WP, w/(3) vert. titanium Agit.
1—750 gal. T304 SS jkt. reactor, Agit.
1—600 gal. Stainless jacketed evaporating & crystallizing kettle, Agit.
54—600 gal. Pfaudler Stainless Steel jacketed kettles, open.
2—500 gal. T304 SS jkt. reactors, ASME, Vacuum, UNUSED.
6—465 gal. T304L SS jacketed reactors, 150 psi internal, 165 psi jkt.
1—300 gal. Pfaudler blue G/L reactor, jkt., Agit., ASME.
1—300 gal. Clascote blue G/L reactor, jkt., Agit., ASME.
1—300 gal. T304 SS jacketed reactor, ASME, UNUSED.
72—250 gal. Pfaudler blue G/L kettles, jkt.
1—200 gal. Readco jkt., T304 SS, Dbl. Motion Agit.
1—175 gal. horiz. Titanium autoclave, 2'x7', 1000 psi, w/(3) vert. Agit.
1—175 gal. T304 SS jkt. reactor, Agit.
2—125 gal. T316 SS jkt. fermenter kettles.
1—30 gal. Pfaudler blue G/L jkt. reactor.

MIXERS — MILLS

40—Baker Perkins #17, 200 gal. jacketed double-arm mixers.
1—Baker Perkins #15-UUMM, 100 gal. dispersion-blade jkt. mixer, 100 HP.
1—Baker Perkins #15, 100 gal. sigma-blade jkt. mixer, T347 SS.
1—Day 100 gal. sigma mixer, T304 SS.
2—J. H. Day #5, 75 gal. sigma mixers.
1—Sturtevant #7, 75 cu. ft. T304 SS blender.
1—Worthington 75 cu. ft. rotary blender.
1—Raymond 66", 6-roller hi-side mill.
1—Raymond 50", 5-roller hi-side mill.
1—Hardinge 8'x48" conical pebble mill.
2—Hardinge 7'x36" conical pebble mills.
1—Allis-Chalmers 6'x12' rod mill, 125 HP.
1—Bonnot 5'x10' ball-rod mill, 75 HP.
3—Allis-Chalmers 5'x22', ball-tube mills.
12—Abbe Eng. 6'x8' batch pebble mills.
2—Patterson 8'x10' batch pebble mills.
1—Mikros #2TH pulv., stirrup hammers.
3—Fitz. SS mills: #D, F, K-8.

AT LITTLE ROCK, ARK.

150—Worthington Worthite cent. pumps: 4"x3", 3"x2", 2"x1-1/2", etc. W/motors.
60—LaBour 2" self-priming stainless centrif. pumps, w/motors.
60,000'—Stainless Steel pipe, sch. 10 & 40, 1", 2", 3", 4", 6", etc.
10,000'—Stainless Steel vapor pipe; 6", 12", 16" & 20" dia.
10,000—Stainless Steel flanged valves: gate, globe, check—all sizes & Mfrs.

COLUMNS—HEAT EXCHANGERS EVAPORATORS—BOILERS

2—Vulcan T316SS 10 plate bubble-cap columns: 110", 60" dia.
1—36" dia. x 6 plate T316SS column.
6—30" dia. x 19' T347SS packed columns.
8—24" x 16' Duriron cast packed columns.
1—24" x 33' Duriron SS packed column.
20—Copper bubble-cap columns: 20" to 54" d.
1—1960 sq. ft. T316 SS exchanger, ASME.
2—1450 sq. ft. T316 SS condensers.
6—1450 sq. ft. Stainless gas heat exchangers.
3—1000 sq. ft. Duriron pipe coolers.
1—900 sq. ft. T304 SS horiz. exchanger.
2—800, 730 sq. ft. T316 SS heat exchangers.
6—691 sq. ft. copper Dbl.-pipe coolers.
8—400 sq. ft. T304 SS pipe coolers.
12—Amer. Heat Reclaiming T316L SS spiral heat exchangers: 162, 73 sq. ft.
15—75 sq. ft. nickel 2" IPS pipe coils.
20—T316 SS condensers & heat exchangers: 510, 427, 410, 400, 390, 290, 277, 264, 250, 50, 47 sq. ft.
20—Duriron pipe coolers, 10 to 170 sq. ft.
7—4000 sq. ft. single-effect calandria evap., copper tubes, C.I. bodies.
1—1250 sq. ft. Mojonnier Stainless evap.
1—1060 sq. ft. Gen. Amer. T316 ELC forced circulation evaporator, 1953, w/pumps, piping, etc.
3—Buflovak double-effect Stainless Vert. long-tube type evaporators: 840, 710, 588 sq. ft.
1—630 sq. ft. Struthers-Wells T316 SS calandria type evap.
1—370 sq. ft. Henzey Stainless evap.
1—320 sq. ft. Steel reboiler evap.
1—250 sq. ft. Buflovak T304 SS evap., forced circulation, recompression.
1—118 sq. ft. F. J. Stokes T316 SS still.
5—Comb. Eng. 435 HP boilers, 300 psi.
3—Edgemoor waste-heat boilers, 250 psi.
2—Keeler 200 HP coal-fired boilers.

CENTRIFUGALS — FILTERS

1—Bird 18"x28", T304 SS, conical bowl.
3—Bird 24"x24", type CH, monel.
1—Bird 24"x38", steel cylin. bowl.
7—Sharples #C-20, #C-27 Super-D-Hydrators, T316 SS, w/timers.
1—Sharples 16-P centrif., T304 SS, pressure-tite.
25—Sharples #AS-16V super centrifugals, Inconel, sludge disch., vapor-tite.
2—Sharples 18V, tined steel vapor-tite.
1—Tolhurst 48" susp., T304 SS perf.
4—A.T.&M. 40" susp., T304 SS perf. & solid.
1—A.T.&M. 40" susp., T316 SS, perf., 30/5 HP.
1—A.T.&M. 32" susp., T304 SS, perf.
1—A.T.&M. 12" susp., T304 SS perf.
5—Shriver 48" cast iron P. & F. filter presses, 50 chambers, Hyd. closure, 1000 sq. ft.
3—Valley 36" Alum. P. & F. filter presses, 65 chambers, Hyd. closure.
1—Sparkler 88 sq. ft. T305 SS filter, #RSC, horiz. tank, vert. leaf.
1—Niagara 64 sq. ft., T304 SS filter, #33D12, horiz. plates, jacketed.
1—Niagara 22 sq. ft. T304 SS, horiz. plate filter, 33-4-D, Jacketed, 1959.
2—Oliver 5'3"x3' rot. vac. filters, T316 SS.
6—Davenport dewatering presses: #1A, 2A, 3A.
2—Niagara #36H-350-2, T316 SS filters, horiz. tank, vert. leaf, 350 sq. ft., jacketed.
1—Niagara 510 sq. ft. T316SS vert. leaf.
1—Niagara 54 sq. ft. T304SS vert. leaf.

SEND FOR DETAILED CIRCULARS AND INFORMATION

PERRY EQUIPMENT CORP.

1407 N. SIXTH STREET
PHILADELPHIA 22, PENNA.
Phone: POplar 3-3505

EQUIPMENT
for CHEMICAL AND ALLIED INDUSTRIES

1—Pfaudler Series R 1500 gal. monel jacketed reactor, complete with agitator and drive.

1—Alloy Fabricators type 316 SS reactor, 4000 gal.

1—Dover type 316 SS jacketed reactor, 4000 gal.

1—Stainless steel jacketed reactor, 2000 gal.

1—Patterson-Kelley type 316 SS jacketed reactor, 1000 gal.

3—Whitlock type 316 SS jacketed reactors, 600 gal.

1—Stainless steel jacketed reactor, 500 gal.

1—Pfaudler type 316 SS 300 gal. jacketed reactor, complete with impeller type agitator and drive, NEW.

1—Walter 300 gal. Hastelloy "B" jacketed kettle.

2—Whitlock type 316 SS 300 gal. receivers.

1—Struthers Wells Hastelloy "B" 300 gal. vacuum receivers.

1—Blaw-Knox stainless steel 300 gal. vacuum receiver.

8—Blaw-Knox type 347 SS vacuum receivers, 100 and 200 gal.

2—Pfaudler Series R 5000 gal. glass lined reactors, complete with agitators and drives, NEW.

2—Pfaudler Series R 3000 gal. glass lined jacketed reactors, complete with agitators and drives.

1—Pfaudler Series R 1500 gal. glass lined reactor, complete with agitator and drive.

1—Glascote Model HR 1000 gal. glass lined jacketed reactor, complete with impeller type agitator and drive.

1—Pfaudler Series EL 750 gal. glass lined jacketed reactor.

1—Pfaudler Series EL 500 gal. glass lined jacketed reactor, complete with agitator and drive.

1—Vulcan Carpenter 20 SS heat exchanger, 600 sq .ft.

3—Badger type 316 SS heat exchangers, 630 sq. ft., 500 sq. ft. and 450 sq. ft.

3—Patterson-Kelley type 316 SS condensers, 300 and 200 sq. ft.

1—Struthers Wells stainless steel 1150 sq. ft. long tube evaporator.

1—Sparkler Hastelloy "B" Model 18D12 jacketed filter.

1—Gemco SS jacketed double cone vacuum blender, 90 cu. ft.

1—J. P. Devine SS jacketed double cone vacuum blender, 30 cu. ft.

1—Shriver SS 24" x 24", 4 eye closed delivery, washing type press, 18 chambers.

1—Sturtevant #7 dustite rotary batch blender, NEW.

1—Young SS double ribbon blender, 4 cu. ft.

10—Robinson SS 250 cu. ft. double ribbon blenders.

3—Robinson SS 125 cu. ft. double ribbon blenders.

1—Baker Perkins 10 gal. SS double arm jacketed mixer.

1—J. H. Day SS 5 gal. vacuum jacketed sigma blade mixer.

1—Baker Perkins SS 100 gal. jacketed double arm mixer.

4—Sharples type 316 SS Nozljectors with 40 HP explosion proof motors.

1—Tolhurst 48" Batch-O-Matic Centrifuge, SS, NEW.

1—Bird SS 40" suspended type centrifuge, complete with perforate basket, motor and plow.

1—AT&M 26" type 316 SS suspended type centrifuge, complete.

4—Tolhurst 40" center slung rubber covered centrifuges with perforate baskets.

2—Fletcher 48" whirlwind rubber covered centrifuges with perforate baskets.

1—Struthers Wells SS rotary dryer, 5' x 25'.

R. GELB & SONS, INC.
UNION, NEW JERSEY Est. 1886 MUrdock 6-4900

2—OLIVER PRESS PRECOAT FILTERS 5'3"—Type 316 S.S.

2—RIBBON BLENDERS, 2500 gal., 1200 gal.

2—AUTOCLAVES S.S., 50 gal., 2000 lb., 3½ gal., 2000 lb.

1—DRUM DRYER, Proctor & Schwartz.

3—COLLOID MILLS, 5 HP EX PR., 40 HP.

Machinecraft Corporation
800 Wilson Avenue, Newark 5, New Jersey
Mitchell 2-7634

FOR THE BEST IN USED EQUIPMENT

4—Lightnin side entering Mixers with 18" S.S. Blades—5 H.P. each.

1—J. H. Day 5-roll high speed Mill.

Conical Dry Mixer 192 cu. ft. vol.; 125 cu. ft. opr. vol.; with 15 H.P. Unibrake Motor.

1—30" Sperry Filter, closed del., 3-eye, 39-plates, 40-frames.

1—International Ball Mill, porcelain lined, 48" x 60", 15 H.P. Unibrake Motor.

1—Sparkler Filter 33-S-28, with Scavenger Plate, steam jacketed, like new.

2—Ball & Jewell #2 Cutters.

1—Patterson Steam Jkt. Ball Mill 42"x36".

2—Twin Screw Mixers, 120 gal. Jkt.

Large stock of new and used H.P. Boilers, Tanks, Pumps, Heat Exchangers, Freon Compressors, Steam Jacketed Kettles, Pulverizers & Autoclaves.

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BEST BUY

ROTO LOUVRE DRYER

Link Belt 705-20. Completely equipped with motors, gear reducer, blowers, cyclone, piping and furnaces. Excellent condition. Like new.

Special Low Price

ME MACHINERY AND EQUIPMENT CO.
125 Townsend St. San Francisco 7, Calif.

ECH SPECIALS

Day #40 Imperial Mixer 150 gal. w'k, 40 hp Abbe 5'x6' Jkt. Ball Mill, chrome mang. steel Stokes Vac. Shelf Dryer, 2 shelves, 40"x42" Pfaudler 1500 gal. Glass Tank, closed top Blaw Knox SS 100 gal. Autocl, agtd. 1000 psi Buflovak 4"x8" Lab. SS Dbl. Drum Dryer, Simpson 24" SS Lab. Mix Muller, 1½ H.P. New Niagara SS Vert. 24" Filter, 55.2 sq. ft. Ribbon Blenders, SS & Steel, NEW & USED

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BUY with Confidence

SAY "HELLO" TO SOME GOOD BUYS

2—Simpson mixers size #2 type UD, jacketed, 6' pans.

3—Tyler Rotap sieves.

7—High speed 3 roller mills 5" x 12", 6" x 14", 9" x 24", 14" x 30".

1—Devine model 5-A 11 shelf vacuum shelf dryer, 40" x 43" shelves.

4—Baker Perkins double arm jacketed mixers 200 gallons, 100 gallons, 2¼ gallons, 7/10 gallon.

3—300 gallon stainless steel jacketed cooking kettles.

4—80 gallon type 347 stainless steel autoclaves, 500 PSI.

5—Mikro pulverizers models 3-TH, 2-TH, 1-SH.

5—Rotary tablet presses Stokes DS-3, RD-2, RD-1; Colton 241, #3.

1—40" rubber covered suspended centrifuge, perforated basket.

1—Readco 190 cu. ft. all stainless steel double spiral ribbon blender.

7—Rotex sifters 20" x 37" double deck, 20" x 48" single deck, 40" x 84" double deck.

Write or Phone Your Inquiries

chemical & process machinery corp.
52 Ninth St. Brooklyn 15, N.Y. HYacinth 9-7200

EQUIPONOMICS

BIRD Continuous Centrifuge 18" x 28" 316 S.S. (1952) 15 H.P. Washing.

COLUMN S.S. 4' D x 65' high, 55 plates.
TANKS S.S. 304, 2500 gal. 7' x 8' new.
KNEADER MASTER—Peterson 2½ gal.
COLLOID MILL—Premier UB5 S.S. 5 H.P.
CENTRIFUGE—ATM Susp. 48" 316 S.S., 50 H.P.
ROLLER MILLS—Ross 14" x 32" Hi Speed Ross 4½" x 10".
CENTRIFUGE—Tolhurst 20", 40" Rubber Lined.
CENTRIFUGE—Western State 36", underdriven, bottom discharge, 316 S.S., 2 speed, 10 H.P. XP.

CHEMICAL PLANT
EQUIPMENT STILL INSTALLED

Nichols Herreshoff Furnace 54" I.D. 8 hearths. Complete.
1250 gal. S.S. Kettle. Jack. Agit.
2,000 gal. S.S. Tanks. Vert.
Hardinge Ball Mill 5' x 22". Complete.
Oliver Drum Filter 3' x 6' S.S. Complete.
S.S. Rotary Drier 3' x 20'.
Raymond Imp. Mill #40. 40 H.P.
MANY EXTRA EQUIPMENT ITEMS

PROCESS PLANTS SERVICE, INC.
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SPECIALS

STAINLESS STEEL TANKS & PORTABLE AGITATORS—20 Open Top, 75-100-125-200-350 gallons.
STAINLESS STEEL JACKETED KETTLES—60-80-100 gallons.
AGITATORS—4 Explosion Proof—1/3 & 1/2 H.P. 3 Ph. 420 rpm.
24 Lightnin Agitators—1 Ph. 1725 rpm. 1/4 - 1/3 - 1/2 - 3/4 H.P.

Ask for Bulletin A-46 just out, for complete listings.

THE MACHINERY & EQUIPMENT CO.
91-93 New Jersey RR Ave., Newark 5, N. J.
Market 2-3103

Business Wants and Offers

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OIL, PAINT AND DRUG REPORTER, 30 *Church St., New York 7, N. Y.*

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Fertilizer, 10-4-6 and 8-8-4 mixed granular form, 100 lb. bag, 1925 tons. Fertilizer, ammonium sulphate, pellet form, 100 lb. bags, 40 tons. Deliveries to Patrick Air Force Base, Fla. IFB, No. 08-606-62-44B. Bid opening Oct. 10.

Liquid Nitrogen, 99.9 percent prity. Deliveries to US Naval Resarch Laboratory required daily in 15, 25, and 50 liter dewars contractor and government owned, 200 liter and 300 gal. Wewars Contractor owned. Indefinite quantity. (Period 11-1-61 thru 10-31-62 or one year from date of award) Delivery to: US Naval Resarch Laboratory, Washington 25, D. C. Bid IFB 173-6-62 Oct. 26, contractors request for copies of this requirement must be received in writing no later than Oct. 13. Supply Officer, US Naval Research Laboratory, Washington, D. C.

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Successor to F. W. Berk & Company, Inc.

Statement of the ownership management, circulation, etc., required by the Acts of Congress of August 24, 1912, and March 3, 1933, and July 2, 1946, and June 11, 1960, of Oil, Paint and Drug Reporter, published weekly at New York, N. Y. for October 1, 1961.

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That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above was 11,534.

(Signed) Arthur R. Kavaler, Managing Editor.

Sworn to and subscribed before me this 14th day of September, 1961.

(Signed) Eleanor H. Buxbaum, Notary Public.

(My commission expires March 30, 1963.)

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OPD's Advertising Staff

PRODUCTION: Claire Shannon
BUYERS DIRECTORY: Helen Lohse
NEW YORK (RE 2-9820)—Alexander Kane, Edwin F. Novy, Bronson Philhower.
MIAMI (FRanklin 9-2648)—John Printup & Associates, Langford Building, Miami 32, Fla.
DALLAS (AD 5-0241)—John Printup & Associates, 906 Beechwood Drive, Richardson (Dallas), Tex.
LOS ANGELES (DUnkirk 7-4388)—Robert W. Walker Company, 730 South Western Avenue, Los Angeles 5, Calif.
SAN FRANCISCO (SUtter 1-5568)—Robert W. Walker Company, 57 Post Street, San Francisco

Petro Naphthalene

—Continued from page 3

50-million-pound facility in operation sometime in late 1962 or early 1963.

Commonwealth's plant will have built-in potential for a capacity boost when new markets develop. "We expect that they will," a spokesman says.

The "Hydeal" process, licensed by Universal Oil Products Company, Des Plaines, Ill., will be used for naphthalene production. A building contractor will be selected shortly.

In the first six months of 1961, Commonwealth reported a net income of $6,103,000 on sales of $44,021,000.

IMPORTS at United States Ports

New York

AGAR—50 cs, S B Penick & Co, Pusan
ALUMINUM PASTE—50 pails, Hamburg
ALUMINUM POWDER—25 dms, Hamburg
ALUMINUM SULFATE—250 bgs, Aceto Chemical Co, Liverpool
AMMONIA CATALYST—8 dms, Spencer Chemical Co, Gothenburg
AMMONIUM CARBONATE—300 dms, Rotterdam
AMYRIS OIL—10 dms, National City Bank, Miragnane
ANGELICA ROOT—28 bgs, Meer Corp, Hamburg
ANILINE DYES—42 dms, Carbic Hoechst Corp, Rotterdam
87 dms, Heemsoth Kerner, Liverpool
20 dms, L & R Organic Products Co, Liverpool
2 dms, General Aniline & Film Corp, Hamburg
243 dms, Sandoz Inc, Rotterdam
130 dms, Geigy Chemical Corp, Havre
3 dms, Sou-Tex Chemical Co, Bremen
100 dms, Wedeman & Godknecht, Hamburg
189 dms, Rotterdam
ANIMAL CHARCOAL—200 bgs, Riches Nelson, Rotterdam
ANNATTO SEED—171 bgs, Foreign Domestic Distributors, Callao
ANTIMONY OXIDE—45 bgs, Revelli Chemicals, Rotterdam
90 bgs, Antwerp
ANTIMONY REGULUS—350 cs, Indussa Corp, Antwerp
95 bbls, Antwerp
ARABIC GUM—1,161 bgs, Irving Trust Co, Port Sudan
254 bgs, National City Bank, Port Sudan
1,008 bgs, Chemical Bank, Port Sudan
250 bgs, Bankers Trust Co, Port Sudan
300 bgs, Chase Manhattan Bank, Port Sudan
850 bgs, Port Sudan
ASCORBIC ACID—60 dms, Yokohama
BARBASCO ROOT—1,089 bls, Callao
BAY OIL—2 dms, Magnus Mabee & Reynard, Port of Spain
BENZOIN GUM—100 cs, Meer Corp, Singapore
BERGAMOT OIL—40 qu cs, Messina
16 cs, Messina
BISMUTH SUBNITRATE—4 cs, Hamburg
BONE—400 bgs, Martin Baer & Co, Santos
716 bgs, Martin Baer & Co, Rio de Janeiro
BONE CHARCOAL—110 bgs, Martin Baer & Co, Lisbon
BONEMEAL—177 bgs, Eastman Gelatine Co, Buenos Aires
BRONZE POWDER—13 dms, Bremen
BRUCINE ALKALOID—6 cs, Frank Samuel & Co, Southampton
CADMIUM BROMIDE—6 dms, Miller Trading Co, Hamburg
CALCIUM CARBONATE—1,600 bgs, N H Weitzner, Antwerp
1,000 bgs, Smith Chemical & Color Co, Liverpool
600 bgs, Whittaker Clark & Daniels, Liverpool
1,000 bgs, Whittaker Clark & Daniels, London
700 bgs, Pluess Staufer, Antwerp
CALCIUM PHOSPHATE, DIBASIC—360 bgs, Wessel Duval & Co, Antwerp
CAMPHOR—25 cs, H A Gogarty, Hong Kong
200 dms, Bremen
CANDELILLA WAX—313 bgs, Tampico
CARAWAY SEED—150 bgs, Biddle Purchasing Co, Rotterdam
400 bgs, Rotterdam
CARDAMOMS—59 cs, Colombo
CARNAUBA WAX—100 bgs, Cornelius Wax Refining Corp, Salvador
50 bgs, M Schmidt, Salvador
22 bgs, Cornelius Wax Refining Corp, Fortaleza
1,105 bgs, Tutoia
CASEIN—500 bgs, First National Boston, Buenos Aires
1,225 bgs, Hamburg
CASHEW NUT SHELL LIQUID—134 dms, Durez Plastics, Cochin
CASSIA—261 bls, J F Frank, Antwerp
84 bls, Ludwig Mueller, Rotterdam
2,348 bls, Rotterdam
CASTOR OIL—308 tons, Baker Castor Oil Co, Santos
200 tons, George Degen & Co, Recife
100 tons, Brazilian Industrial Oils Inc, Fortaleza
100 tons, Pacific Vegetable Oil Corp, Fortaleza
366 tons, Santos
145 tons, Recife
CELESTITE—1,535 tons, E I Dupont De Nemours & Co, Avonmouth
CHICAGO ACID—20 dms, Kaufman & Vinson, Kobe
CHLORAL HYDRATE—10 dms, Hamburg
CINNAMON BARK OIL—1 cs, George Uhe Co, Galle
1 cs, Volkart Bros, Colombo
CINNAMON LEAF OIL—3 dms, George Uhe Co, Galle
CITRONELLA OIL—6 dms, Lo Curto & Funk, Galle
6 dms, Volkart Bros, Galle
39 dms, George Uhe Co, Galle
11 dms, Fritzsche Bros, Galle
11 dms, Balfour Guthrie, Galle
50 dms, Lo Curto & Funk, Puerto Barrios
25 dms, Keelung
CLAY—1,200 bgs, L A Salomon & Bro, Hamburg
CLAY, BALL—1,674 bgs, United Clay Mines Corp, Avonmouth
CLAY, CHINA—840 bgs, Papermakers Importing Co, Avonmouth
CLEVE'S ACID—24 dms, Antwerp
COBALT CHLORIDE—10 dms, Philipp Bros Chemicals, Hamburg
COCHINEAL—52 bgs, Irving Trust Co, Las Palmas
COCONUT OIL—19 tons, Canerpa Ltd, Rotterdam
23 tons, Fallek Products Co, Rotterdam
1,310 tons, Cebu
COD OIL—50 dms, Dyson Shipping Co, Reykjavik
34 tons, Dyson Shipping Co, Reykjavik
CODLIVERMEAL—400 bgs, Dyson Shipping Co, Reykjavik
CODLIVER OIL—60 dms, Marine Products Co, Reykjavik
COPAL GUM—25 cs, S Winterbourne & Co, Singapore
71 bgs, Wm H Scheel, Manila
CORIANDER SEED—300 bgs, Kenitra
CORN OIL—160 tons, Corn Products Co, Rotterdam
CORNMINT OIL—10 dms, Lo Curto & Funk, Santos
CORN STARCH—2,200 bgs, Impex Agricultural Co, Rijeka
1,120 bgs, Rotterdam
COSTUS ROOT—9 bgs, S B Penick & Co, Calcutta
CUMIN SEED—250 bgs, Curaccao Trading Co, Khorramshahr
500 bgs, Khorramshahr
d-CYSTINE—2 dms, Hamburg
DAMIANA LEAVES—25 bgs, F D Keller & Son, Tampico
DAMMAR GUM—64 bgs, S Winterbourne & Co, Singapore
DEGRAS—24 cs, Robinson Wagner Co, Liverpool
88 dms, Olympic Shipping Co, Liverpool
75 dms, Antwerp
DEHYDROACETIC ACID—5 kgs, Croda Inc, London
DEXTRIN—330 bgs, Morningstar Paisley Inc, Rotterdam
650 bgs, Stein Hall & Co, Rotterdam
520 bgs, Rotterdam
DIACETYL—6 cs, H A Gogarty, Rouen
DICYANDIAMIDE—400 bgs, Okura & Co, N Y, Yokohama
DYES, COALTAR—131 dms, Wedeman & Godknecht, Hamburg
54 dms, Orlex Dyes & Chemical Corp, Hamburg
174 dms, Sandoz Inc, Rotterdam
109 dms, General Aniline & Film Corp, Hamburg
21 dms, Rotterdam
EARTH COLORS—600 bgs, Naftone Inc, Rotterdam
44 dms, United Mineral & Chemical Corp, Liverpool
1,200 bgs, Naftone Inc, Bremen
1,200 bgs, Smith Chemical & Color Co, Avonmouth
FENUGREEK SEED—250 bgs, Kenitra
FERRIC SULFATE—50 dms, Hudson Shipping Co, Liverpool
FISHLIVER OIL—3 dms, Interocean Chemical & Minerals Corp, Yokohama
13 dms, Chase Manhattan Bank, Yokohama
10 dms, Yokohama
GARLIC OIL—1 cs, National City Bank, Kobe
3 cs, Felton Chemical Co, Kobe
GELATIN—303 bgs, H Bruckmann & Lorbacher, Rotterdam
10 bbls, Coignet Chemical Co, Antwerp
134 bbls, Riches Nelson, Antwerp
40 bbls, Antwerp
50 cks, Havre
60 dms, H Bruckmann & Lorbacher, Rotterdam
80 dms, D H Burdett, Liverpool
600 bgs, First National Boston, Hamburg
100 dms, D H Burdett, London
GINGER—437 bgs, Ludwig Mueller, London
GLUE—200 bgs, Jung Forwarding Co, Liverpool
GLYCERINE—300 tons, Procter & Gamble Co, Manila
GUAR GUM—250 bgs, Wedeman & Godknecht, Genoa
100 bgs, Meer Corp, Genoa
3,975 bgs, Stein Hall & Co, Calcutta
1,464 bgs, Stein Hall & Co, Karachi
300 bgs, T M Duche & Sons, Rotterdam
GYPSUM, CRUDE—4,930 tons, National Gypsum Co, Walton
10,319 tons, U S Gypsum Co, Hantsport
10,405 tons, U S Gypsum Co, Little Narrows
15,891 tons, Allied Chemical Corp, Halifax
HEXACHLOROETHANE—200 bgs, Transword International Service, Bremen
IODINE, CRUDE—40 kgs, Yokohama
IRISH MOSS EXTRACT—30 dms, T M Duche & Sons, Gothenburg
IRON OXIDE—112 bgs, Reichard Coulston, Avonmouth
100 bgs, J Lee Smith, Liverpool
JAPAN WAX—110 bgs, Yokohama
KARAYA GUM—61 bgs, Block Drug Co, Bombay
121 bgs, Colony Import & Export Corp, Bombay
50 bgs, Meer Corp, Bombay
120 bgs, Jacques Wolf, Bombay
244 bgs, Morningstar Paisley Inc, Bombay
LACTIC ACID—20 cs, Kolon Trading Co, Hamburg
8 djns, E F Drew & Co, Hamburg
58 dms, A Millner Co, Liverpool
10 cs, Baird Chemical Industries, Copenhagen
LACTOSE—100 dms, Mutchler Chemical Co, Rotterdam
50 bgs, Mutchler Chemical Co, Rotterdam
175 dms, Rotterdam
LAUREL LEAVES—64 bls, V A Cordovi, Iskenderun
LAVANDIN OIL—5 dms, Tombarel Products Corp, Cannes
LEAD OXIDE—74 dms, J J Gavin, Vera Cruz
LEMON OIL—5 dms, Fritzsche Bros, Vera Cruz
10 dms, Magnus Mabee & Reynard, Vera Cruz
221 cs, Messina
19 cs, Palermo
LIVER POWDER, DESICATED—34 dms, Van Gelder Fanto Corp, Buenos Aires
LOCUST BEAN GUM—100 bgs, Meer Corp, Genoa
200 bgs, Palma de Mallorca
MACE—28 cs, P H Petry, Hamburg
50 cs, M J Golombeck, Singapore
MAGNESIUM GLYCINATE—4 dms, London
MENTHOL—40 cs, George Uhe Co, Keelung
30 cs, Chase Manhattan Bank, Keelung
25 cs, S S T Corp, Keelung
362 cs, Schwabach & Co, Santos
125 cs, Bemo Shipping Co, Santos
150 cs, Lo Curto & Funk, Santos
75 cs, American Far Eastern Syndicate, Santos
50 cs, Magnus Mabee & Reynard, Keelung
MERCURY—900 Flks, Cadiz
METHYL METHACRYLATE—2 cs, American Cyanamid Co, Liverpool
METHYLNAPHTHALENE—25 dms, G A Abood, Rotterdam
MONOCHLOROACETIC ACID—80 dms, Orlex Dyes & Chemical Corp, Bremen
MUSTARD SEED—1,000 bgs, Berns & Koppstein, Hamburg
1,424 bgs, F Henjes Jr, Hamburg
360 bgs, R T French, London
143 bgs, Hamburg
MYRABOLAN EXTRACT—700 bgs, Tanimex Corp, Liverpool
750 bgs, International Products Corp, Liverpool
MYRRH GUM—80 bgs, E D Heins, Aden
NAPHTHALENE—3,125 bgs, Rotterdam
NICOTINE ALKALOID—3 dms, Hudson Shipping Co, Liverpool
NUTMEG—70 bgs, Hismoco American Co, Singapore
136 bgs, P H Petry, Hamburg
250 bgs, Port of Spain
80 bgs, Rotterdam
OLIVE OIL—482 dms, Gem Packing Corp, Malaga
97 dms, Pasajes
OREGANO LEAVES—221 bgs, H Marmorek & Son, Tampico
400 bgs, G Athans, Piraeus
OURICURY WAX—100 bgs, Cornelius Wax Refining Corp, Salvador
114 bgs, Wm H Muller, Rotterdam
PALMKERNEL OIL—300 tons, Matadi
PALO SANTO OIL—11 dms, Asuncion
PAPAYA LEAVES—100 bgs, Meer Corp, Colombo
PAPRIKA—25 bgs, J H Elton, Alicante
PEPPER, BLACK—15 bgs, Producters Co, Singapore
80 bgs, Max Van Pels, Singapore
1,330 bgs, A G Dunn, Singapore
210 bgs, George Uhe Co, Singapore
70 bgs, Ludwig Mueller, Singapore
70 bgs, Trinity Trading Co, Singapore
600 bgs, Mitsui & Co, Belem
300 bgs, C Czarinkow, Belem
300 bgs, A G Dunn, Belem
450 bgs, Internatio Rotterdam, Belem
200 bgs, Catz American Co, Belem
400 bgs, Mutual Spice Co, Belem
140 bgs, C Czarinkow, Singapore
140 bgs, Singapore
880 bgs, Cochin
PETITGRAIN OIL—6 dms, Asuncion
PHENACETINE—32 cs, Panmed Pharmaceuticals, Antwerp
PHOSPHORUS, RED—100 cs, Hummel Chemical Co, Bremen
POLYVINYL ACETATE EMULSION—25 dms, Lloyd Associates, Bremen
POLYVINYL ALCOHOL—300 bgs, Colloids Inc, Kobe
120 bgs, Kobe
POPPY SEED—200 bgs, Biddle Purchasing Co, Rotterdam
200 bgs, Sokol & Co, Rotterdam
200 bgs, Louis Furth, Rotterdam
225 bgs, Levy & Levis Co, Rotterdam
POTASSIUM IODIDE—10 dms, Rhodia Inc, Southampton
PYRENE—8 cks, Terra Chemicals Inc, Rotterdam
QUEBRACHO EXTRACT—678 bgs, First National Chicago, Buenos Aires
QUINIDINE SULFATE—8 cs, Chas L Huisking & Co, Hamburg
20 dms, Lo Curto & Funk, Bremen
1 cs, Harrison & Crossfield, Southampton
QUININE HYDROCHLORIDE—3 kgs, Panmed Pharmaceuticals Inc, Southampton
10 cs, Gyma Lab, London
8 dms, Lo Curto & Funk, Hamburg
QUINOLINE—1 dm, Rotterdam
RAPE SEED—220 bgs, Hinton & Co, Rotterdam
550 bgs, Hartz Mountain Products, Rotterdam
RAUWOLFIA SERPENTINA ROOT—100 bgs, Meer Corp, Calcutta
d-RIBONOLACTONE—7 dms, Hoffmann-La Roche Inc, Bremen
RICE STARCH—80 bgs, Morningstar Paisley Inc, Bremen
R-SALT—12 kgs, W A Erickson & Co, Genoa
3 dms, Mackenzie Chemical Works, Liverpool
18 bbls, Antwerp
SABADILLA SEED—31 bgs, Callao
SANDALWOOD OIL—6 cs, International Flavors & Fragrances Inc, Calcutta
SAPONIN—7 cs, A K Peters Co, Valparaiso
SEEDLAC—500 bgs, United Shellac Corp, Calcutta
SENNA LEAVES—85 bls, Meer Corp, Tuticorin
SHELLAC—44 bgs, F H Paul & Stein Bros, Hamburg
SODIUM ALGINATE—50 dms, Stein Hall & Co, Glasgow
SODIUM BICARBONATE—800 bgs, Chemical Manufacturing Co, Liverpool
SODIUM CYANIDE—515 dms, Chemical Manufacturing Co, Liverpool
120 dms, Ugine Industries, Havre
SODIUM CYCLAMATE—10 dms, Rotterdam
SODIUM FERROCYANIDE—300 bgs, Filo Color & Chemical Co, Rotterdam
280 bgs, Antwerp
SODIUM PHOSPHATE—400 bgs, Benckiser Inc, Rotterdam
50 dms, Benckiser Inc, Rotterdam
SODIUM SILICOFLUORIDE—550 bgs, Copenhagen
STEARYL ALCOHOL—882 bgs, A & S Corp, Kobe
SULFANILAMIDE—40 dms, Lo Curto & Funk, London
TAPIOCA FLOUR—3,131 bgs, Stein Hall & Co, Bangkok
672 bgs, Stein Hall & Co, Kohsichang
600 bgs, Morningstar Paisley Inc, Kohsichang
TAR—3,379 tons, Koppers Co, Sydney
TARTARIC ACID—80 kgs, Palermo
TEA OF MATE—120 cs, Meer Corp, Paranagua
THEOBROMINE—100 dms, Chas L Huisking & Co, Rotterdam
TOLU BALSAM—25 cs, Barranquilla
TONKA BEANS—38 cs, Machado & Co, Port of Spain
250 cs, Port of Spain
TRAGACANTH GUM—10 cs, S B Penick & Co, Khorramshahr
TUNG OIL—306 tons, Pacific Vegetable Oil Corp, Buenos Aires
100 tons, Internatio Rotterdam, Buenos Aires
VANILLA BEANS—17 cs, Morningstar Paisley Inc, Hamburg
38 cs, Singapore
VINYL CO-POLYMERS—220 dms, London
ZINC CHLORIDE—53 dms, Antwerp

Los Angeles

ALUMINUM OXIDE—400 bgs, F D Davis Co, Hamburg
COPRA—2,500 tons, Vegetable Oil Products Co, Cebu
1,000 tons, Cargill Inc, Cebu
1,000 tons, Wells Fargo Bank, Cebu
EARTH COLORS—900 bgs, Naftone Inc, Rotterdam
GELATIN—53 bbls, B Young, Antwerp
IRON OXIDE—50 bbls, L H Butcher Co, Malaga
50 bbls, Los Angeles Chemical Co, Malaga
500 bgs, Union Trust Co, Malaga
800 bgs, London
MINERAL LUBRICATING OIL—200 dms, Asiatic Petroleum Corp, Rotterdam
OLIVE OIL—75 dms, Seville
POPPY SEED—75 bgs, Hi moco American Co, Rotterdam
SODIUM BICARBONATE—400 bgs, Chemical Manufacturing Co, Manchester

Philadelphia

ASBESTOS FIBER—600 bgs, Davies Turner & Co, Capetown
BONE—1,572 bgs, Ossa Products, Buenos Aires
CASEIN—800 bgs, National Casein Co, Buenos Aires
CASTOR OIL—100 tons, Santos
100 tons, Rio de Janeiro
EARTH COLORS—1,102 bgs, Leghorn
FUEL OIL—80,000 bbls, Sinclair Refining Co, Puerto La Cruz
HORNMEAL—525 bgs, A M Goldstein, Santos
LICORICE ROOT—5,950 bls, Mac Andrews & Forbes, Basrah
6,700 bls, Bushire
MELAMINE—400 bgs, Yokohama
OLIVE OIL—200 dms, Smith Weihman Co, Lisbon
TARTARIC ACID—75 bgs, Frank Samuel & Co, Marseille
WATTLE EXTRACT—340 bgs, Barkey Importing Co, Dares Salaam
538 bgs, Elkan River Plate Corp, Lourenco Marques

San Francisco

AMMONIUM CHLORIDE—160 bgs, Chemical Manufacturing Co, Liverpool
100 bgs, Chemical Manufacturing Co, Manchester
ANIMAL CHARCOAL—960 bgs, Glasgow
CALCIUM CARBONATE—1,600 bgs, Pluess Staufer, Antwerp
CASEIN—400 bgs, J H Spellacy, Sydney
1,596 bgs, A J Mills & Co, Auckland
CELERY SEED—85 bgs, Hismoco American Co, Bombay
COPRA—10,355 tons, Cargill Inc, Cebu
1,000 tons, Cargill Inc, Ozamis
1,000 tons, Cargill Inc, Masbate
CREAM OF TARTAR—60 dms, Thornley & Pitt, Genoa
LACTIC ACID—30 dms, A Millner Co, Manchester
LINDANE—25 dms, Thornley & Pitt, Kobe
LOCUST BEAN GUM—100 bgs, Stein Hall & Co, Genoa
NUTMEG—49 bgs, Singapore
POLYVINYL ALCOHOL—350 bgs, Kobe
SODIUM BICARBONATE—300 bgs, Chemical Manufacturing Co, Manchester
SODIUM SILICOFLUORIDE—155 bgs, P W Bellingall, Kobe
TAPIOCA FLOUR—2,380 bgs, Morningstar Paisley Inc, Kohsichang
1,000 bgs, Stein Hall & Co, Kohsichang
TARTARIC ACID—80 bgs, Thornley & Pitt, Genoa
TRICHLOROETHYLENE—80 dms, Chemical Manufacturing Co, Liverpool
UREA—907 tons, Wilson & Geo Meyer & Co, Heroya
XYLENE-FORMALDEHYDE RESIN—3 cs, Kobe

Obituaries

Dr. Walter H. Hartung

Dr. Walter H. Hartung, an authority on drug chemistry, died September 29 in Richmond, Va. He was sixty-six years old.

Dr. Hartung was chairman of the department of pharmaceutical chemistry and the department of chemistry at the Medical College of Virginia.

He was widely known for his work in synthetic medicinal chemistry and the correlation of chemical structures with physiological activity.

Herbert B. Morse

Herbert B. Morse, who recently retired after sixty-five years in the wax industry, died September 28 in Wellesley Hills, Mass. He was eighty-four years old.

Mr. Morse started with Howe & French, of Boston, Mass., in 1896. He established Knox & Morse Company at Boston in 1905, and after the death of H. P. Knox founded his own company, Herbert B. Morse & Co., in 1939.

Piers G. E. Warburton

Piers G. E. Warburton, retired chairman of Richard L. Warner, Ltd., British subsidiary of Warner-Lambert, Inc. (now Warner Lambert Pharmaceutical Company), died October 5 in London, England. He was sixty-five years old.

From 1925 to 1959, Mr. Warburton was European manager of Vick Chemical Company (now Richardson-Merrell, Inc.). Later he was vice-president of American Home Products International in New York.

Lead, Zinc Subsidy Bill

—Continued from page 3

cost about $16.5 million and benefit 275 miners.

Subsidies will be limited to a maximum of 1,500 tons of each metal during the first year, 1,200 tons in the second year, 900 tons in the third, and 600 tons in the fourth.

The subsidies to be paid will equal 75 percent of the difference between 15.4 cents a pound and the current market price in the case of lead, and 55 percent of the difference in the case of zinc.

The bill was a compromise between a program offered by the administration and a more liberal subsidy plan, plus higher lead and zinc tariffs, urged by the western mining states.

Shortly after the bill passed congress, the senate approved a resolution directing the Tariff Commission to make another study of conditions in the lead and zinc industry for possible legislative action by congress.

In a report to the President last week on the lead and zinc market since quotas were plaeed on imports in October, 1958, the Tariff Commission said that it could find no change in competitive conditions such as to warrant a formal investigation at this time.

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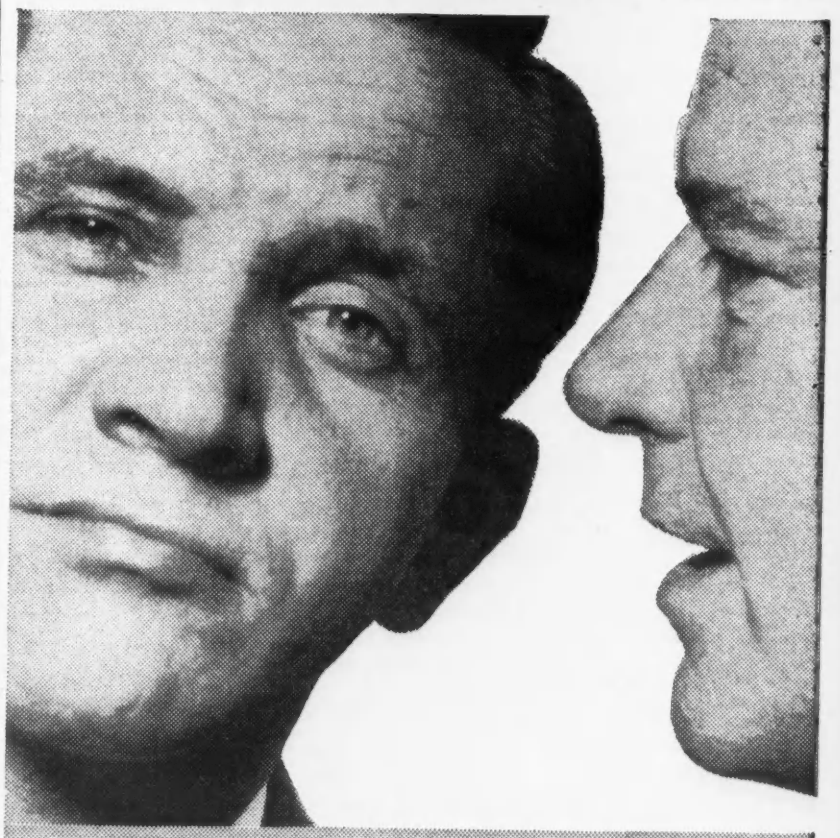

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